56,047/c

The Map of Iraun Samuto which should be placed at 661 is misplaced at 1281

101 D. 17.

C. Turner sculp.

Vasco de Gama.

London, Published May 1st 1800, by the Rd. Dr. Vincent, Deans Yard, Westminster.

62340

THE COMMERCE AND NAVIGATION OF *THE ANCIENTS* IN THE INDIAN OCEAN.

By WILLIAM VINCENT, D.D.
DEAN OF WESTMINSTER.

IN TWO VOLUMES.
VOL. II.

LONDON:
PRINTED FOR T. CADELL AND W. DAVIES IN THE STRAND.
1807.

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THE

PERIPLUS

OF THE

ERYTHREAN SEA.

PART THE FIRST.

CONTAINING,

AN ACCOUNT OF

THE NAVIGATION OF THE ANCIENTS,

FROM THE SEA OF SUEZ TO THE COAST OF ZANGUEBAR.

WITH DISSERTATIONS.

Γεωγραφικὰ que instituera magnum opus est, et hercule res sunt difficiles ad explicandum et ὁμοειδεῖς, nec tam possunt ἀνθηρογραφεῖσθαι quàm videbatur.

CIC. AD ATTICUM, lib. ii. ep. 6.

THE PERIPLUS OF THE ERYTHRÆAN SEA.

PART THE FIRST.

CONTAINING,

AN ACCOUNT OF

THE NAVIGATION OF THE ANCIENTS,

FROM THE ERA OF 1868, TO THE COAST OF MALABAR.

WITH DISSERTATIONS.

TO

THE KING.

SIR,

WHILE we contemplate the maritime power of Great Britain, raised under the auspices of Your Majesty to a pre-eminence unexampled in the annals of mankind; we view with equal pleasure those not less useful though less splendid efforts, which, under Your Majesty's immediate patronage and direction, have advanced the limits of discovery to that boundary which Nature has fixed as a barrier to the enterprize of man.

It is due to the consummate abilities of the most experienced commanders, exercised under this patronage and direction, that a solution has been given to three of the greatest problems that concern the world which we inhabit; for it is now determined by a succession of voyages commenced and prosecuted by Your Majesty's command, that the Entrance into the Pacifick Ocean by a passage either on the North West or North East is impracticable, and that the Existence of a great Southern Continent had nothing but theory for its support. It has likewise been proved that, in consequence of Your Majesty's instructions, distant nations may be visited, not for the purpose of subjugation, but for the interchange of mutual benefits, and for promoting the general intercourse of

mankind. Great, however, as is the result of these designs, a truth still more important to navigation has been established, which is, that the health of the mariner is not endangered by the most protracted voyages, or the greatest vicissitudes of climate.

In the prosecution of these arduous undertakings, if we have seen science advancing to perfection, it is still an object of interesting curiosity to turn our view back from the result to the origin, to trace navigation to its source, and discovery to its commencement.

This is the design of the Work which I have now the honour to present to Your Majesty for protection; its merits must be

left to future decision; but it is at least a tribute of gratitude offered to the patron of every science, in which the interests of navigation and geography are concerned. I have the honour to subscribe myself

YOUR MAJESTY's

Most faithful

and most devoted

Subject and Servant,

MAY 9th, 1800.

WILLIAM VINCENT.

PREFACE.

MUCH disquisition upon a brief narrative is the professed design of the following work; a work which has increased under my hands far beyond my calculation or desire, and which I now publish incomplete, because, from the various interruptions of an active life, whatever may be my wish and object, I cannot pledge myself to bring it to a conclusion.

SUCH encouragement as I had reason to expect has not been wanting to my former Labours. Popular reputation I neither courted or declined; emolument I neither coveted or disclaimed; but if the approbation of many excellent and learned men be an object of ambition, I have had my reward.

To the censures which I incurred, I am not insensible; but if censure be not illiberal, it is the part of prudence to turn it rather to the purpose of correction than offence.

Captain Francklin of the Bengal Establishment. I have likewise been again more particularly obliged to the Bishop of Rochester for his assistance in correcting the position of Meroè: a question worthy of his learning and penetration to discuss; and which, if properly decided, must afford equal satisfaction to the geographer and astronomer.

May 9, 1800.

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CHART of the RED SEA

Copied by Mr Dalrymple's permission from the CHART by Robt White 1795

NB the line of Coast alone is taken from Mr Dalrymple's Chart. the names of places, and all other parts of the work, are from different authorities, and accommodated to the PERIPLUS.

Names of the Periplus in Roman letters

Modern names in Italicks

Places supposed to be ascertained have an Asterisk.

N.B. The Arabs consider the South as the right hand & the North as the left. consequently Yemen the Right Hand & Saba the South are synonymous.

Published according to Act of Parliament May 1st 1800 by D. Vincent.

J. Walker Sculp.

THE

PERIPLUS

OF THE

ERYTHREAN SEA.

BOOK I.

PRELIMINARY DISQUISITIONS.

I. *Introduction.*—II. *Account of the Periplûs.*—III. *Homer.*—IV. *Herôdotus.*—V. *Ctêsias.*—VI. *Iambûlus.*—VII. *Agathárchides.*—VIII. *Híppalus.*—IX. *Age of the Periplûs.*—X. *Intercourse with India.*

I. NAVIGATION, perfected as it is at the present hour, opens all the maritime regions of the world to the knowledge of mankind; but in the early ages, personal intercourse was impracticable; the communication[1] by sea was unexplored, and travelling by land was precluded by insecurity. The native commodities of one climate passed into another by intermediate agents, who were interested in little beyond the profits of the transit; and nations in a different hemisphere were known respectively, not by their history, but their produce.

[1] Polybius has the same sentiment. Lib. iii. c. 58.

Such was the situation of Europe in regard to India; the produce of each was conveyed to the other by channels which were unknown to both; and the communication by land through Tartary or Persia, was as little understood, as the intercourse by the Indian Ocean. That both existed in some sense or other is undeniable; for the most ancient of all histories mentions commodities which are the native produce of India, and which if they were known, of necessity must have been conveyed. What the course of conveyance was by land, or on the north, is a subject which does not enter into the plan of the following work; but the transport by sea is a consideration of all others the most important; it is dependent on a discovery common to all the nations of the world; the dominion of the sea may pass from one people to another, but the communication itself is opened once for all; it can never be shut.

That the Arabians were the first navigators of the Indian Ocean, and the first carriers of Indian produce, is evident from all history, as far as history goes back; and antecedent to history, from analogy, from necessity, and from local situation; out of their hands this commerce was transferred to the Greeks of Egypt, and to the Romans[2] when masters of that country; upon the decline of the Roman power it reverted to the Arabians, and with them it would have remained, if no Gama had arisen to effect a change in the whole commercial system of the world at large.

It is the interval between the voyage of Nearchus and the discoveries of the Portuguese which I intend to examine in the

[2] Perhaps never to the Romans, but to the Greeks of Egypt under the power of the Romans.

following work; the basis which I assume is the Periplûs of the Erythrêan Sea; and in commenting on this work, an opportunity will be given to introduce all the particulars connected with the general subject.

ACCOUNT OF THE PERIPLUS.

II. The Periplûs of the Erythrêan Sea is a title prefixed to a work which contains the best account of the commerce carried on from the Red Sea and the coast of Africa to the East Indies, during the time that Egypt was a province of the Roman empire.

This work was first edited from the press of Froben at Basle, in 1533, with a prefatory epistle by Gelenius[3]; but from what manuscript I have never been able to discover; neither is it known whether any manuscript of it is now in existence. The edition of Stuckius at Zurich, in 1577, and Hudson in 1698, at Oxford, are both from the printed copy, which is notoriously incorrect, and their emendations remove few of the material difficulties[4]; besides these, there is a translation in the collection of Ramusio, faithful indeed, as all his translations are, but without any attempt to amend the text, or any comment to explain it; he has prefixed a discourse however of considerable merit and much learning, which I have made use of wherever it could be of service, as I have also of the commentaries of

[3] Sigismund Gelenius was a man of family, and of great learning; he was one of the correctors of Froben's press at Basle, and much connected with Erasmus and Luther. He is mentioned in Erasmus's will. See Jortin's Life of Erasmus, vol. ii. 471. 486. and Bayle.

[4] The two inexplicable difficulties are, Ἐιτενηδιομμενεθεσίας, p. 9. and ἀπὸ Ὀπώνης ἐις νότον προχωρεῖ, p. 7. See infra.

Stuckius, Hudson, and Dodwell; but the author with whom I am most in harmony upon the whole, is Vossius, who in his edition of Pomponius Mela has touched upon some of these points, and I wish we had the ground of his opinion in detail.

The Erythrêan Sea is an appellation given in the age of the author to the whole expanse of ocean reaching from the coast of Africa to the utmost boundary of ancient knowledge on the east; an appellation, in all appearance, deduced from their entrance into it by the straits of the Red Sea, styled Erythra[5] by the Greeks, and not excluding the gulph of Persia, to which the fabulous history of a king Erythras is more peculiarly appropriate.

Who the author was, is by no means evident, but certainly not Arrian of Nicomêdia, who wrote the history of Alexander, whose writings have been the subject of my meditations for many years, and whose name I should have been happy to prefix to the present work; HE was a man of eminence by birth, rank, talents, and education, while the author before us has none of these qualities to boast; but veracity is a recommendation which will compensate for deficiency in any other respect: this praise is indisputably his due, and to display this in all its

[5] We are warned against the connection of Erythra with Erythrêan by Agathárchides, p. 4. Geog. Min. Hudson, Θάλατταν Ερυθρέάν, he says, signifies the Red Sea; Θάλατταν Ερύθρα, the sea of Erythras, is the ocean which takes its name from king Erythra, according to the Persian account. Salmasius and Hudson give little credit to Agathárchides for this intelligence. See note, ibid.: both agree in supposing Edom, Red, to be the true etymology, the sea of Edom, or Esau, the Idumêan Sea. Agathárchides says, it is not from the colour of the sea, for it is not red, τὸ μὲν ἀπὸ τῆ χρώματος τὴν κλῆσιν κατασκευάζον, ψεῦδος· (ὲ γὰρ ἔστιν ἐρυθρὰν,) this is well known, but it ought to be remembered that Im Suph of the Hebrews is the weedy sea; and Lobo asserts, that Sufo is a name still applied to a weed in this sea used for dyeing red; this is probably indeed not the source of the etymology, but it is not unworthy of notice.

parts is the principal merit of the commentary I have undertaken.

Arrian of Nicomêdia has left us the Paraplûs of Nearchus, and the Periplûs of the Euxine Sea; and as the latter was published by Gelenius[6], in the same volume with the work which is the immediate object of consideration, it is not impossible, if the Periplûs of the Erythrêan Sea was found anonymous, that it was attributed to an author whose name on similar subjects was familiar. But if Arrian be the real name of the author now under contemplation, and not fictitious, he appears from internal evidence to have been a Greek, a native of Egypt, or a resident in that country, and a merchant of Alexandria: he manifestly sailed on board the fleet from Egypt, as far as the gulph of Cambay, if not farther; and, from circumstances that will appear hereafter, is prior to Arrian of Nicomêdia by little less than a century. His work has long been appreciated by geographers, and is worthy of high estimation as far as the author can be supposed personally to have visited the countries he describes; some scattered lights also occur even in regard to the most distant regions of the east, which are valuable as exhibiting the first dawn of information upon the subject.

Of this work no adequate idea could be formed by a translation; but a comparison of its contents with the knowledge of India, which we have obtained since Gama burst the barrier of discovery, cannot but be acceptable to those who value geography as a science, or delight in it as a picture of the world.

[6] See Hudson's preface to the Minor Geographers. I have seen no edition of Arrian's work prior to 1533, by Gelenius, and have not learnt that a prior edition existed. Gelenius I have, by favour of Dr. Charles Burney.

The Periplûs itself is divided into two distinct parts, one comprehending the coast of Africa from Muos Hormus to Rhapta; the other, commencing from the same point, includes the coast of Arabia, both within the Red Sea and on the ocean; and then passing over to Guzerat runs down the coast of Malabar to Ceylon. It is the first part, containing the account of Africa, which I now present to the public; a work which, perhaps, I ought never to have undertaken, but which I hope to complete with the addition of the oriental part, (if blessed with a continuance of life and health,) by devoting to this purpose the few intervals which can be spared from the more important duties in which I am engaged. The whole will be comprehended in four books; the first consisting of preliminary matter, and the other three allotted respectively to Africa, Arabia, and India, the three different countries which form the subject matter of the Periplûs itself. In the execution of this design I shall encroach but little on the ground already occupied by Doctor Robertson; but to Harris, and his learned editor Doctor Campbell, I have many obligations. I follow the same arrangement in my consideration of the Greek authors, borrowing sometimes from their materials, but never bound by their decisions: where I am indebted I shall not be sparing of my acknowledgments; and where I dissent, sufficient reasons will be assigned. I could have wished for the company of such able guides farther on my journey; but I soon diverge from their track, and must explore my way like an Arab in the desert, by a few slight marks which have escaped the ravages of time and the desolation of war.

To a nation now mistress of those Indian territories which were known to Alexander only by report, and to the Greeks of

Egypt only by the intervention of a commerce restricted to the coast, it may be deemed an object of high curiosity at least, if not of utility, to trace back the origin and progress of discovery, and to examine the minute and accidental causes which have led to all our knowledge of the east; causes, which have by slow and imperceptible degrees weakened all the great powers of Asia, which have dissolved the empires of Persia and Hindostan, and have reduced the Othmans to a secondary rank; while Europe has arisen paramount in arts and arms, and Britain is the ruling power in India, from Ceylon to the Ganges;—a supremacy this, envied undoubtedly by our enemies, and reprobated by the advocates of our enemies. Anquetil du Perron and Bernoulli [7], exclaim at the injustice of our conquests; but who ever asserted that conquest was founded upon justice? The Portuguese, the Hollanders, and the French were all intruders upon the natives, to the extent of their ability, as well as the British. India in no age since the irruptions of the Tartars and Mahomedans has known any power, but the power of the sword; and great as the usurpation of the Europeans may have been, it was originally founded in necessity. It is not my wish to justify the excess; but there are nations, with which there can be no intercourse without a pledge for the security of the merchant. The Portuguese, upon their first arrival at Calicut, could not trade but by force: it was in consequence of this necessity, that all the Europeans demanded or extorted the liberty of erecting forts for their factories; and this privilege, once granted, led the way to every encroachment which ensued. I notice this, because the same danger pro-

[7] See Description de l'Inde, in three vols. by Bernoulli, Berlin 1787, vol. ii.

duced the same effects from the beginning. It will appear from the Periplûs, that the Arabians in that age had fortified their factories on the coast of Africa, and the Portuguese historians mention the same precaution used in the same country by the Arabs in the age of Gama. From this slender origin all the conquests of the Europeans in India have taken their rise, till they have grown into a consequence which it was impossible to foresee, and which it is now impossible to control. No nation can abandon its conquests without ruin; for it is not only positive subtraction from one scale, but preponderancy accumulated in the other. No power can be withdrawn from a single province, but that it would be occupied by a rival upon the instant. Nothing remains but to moderate an evil which cannot be removed, and to regulate the government by the interests of the governed. This imports the conquerors as much as the conquered; for it is a maxim never to be forgotten, that the Portuguese lost by their avarice the empire they had acquired by their valour; but of this too much:—our present business is not with the result of discovery, but its origin.

Voyages are now performed to the most distant regions of the world without any intervening difficulties but the ordinary hazard of the sea. In the ancient world the case was very different: a voyage from Thessaly to the Phasis was an achievement which consecrated the fame of the adventurers by a memorial in the Heavens, and the passage from the Mediterranean into the Atlantic Ocean was to the Phênicians a secret of state.

The reality of the Argonautic expedition has been questioned; but if the primordial history of every nation but one is tinctured with the fabulous, and if from among the rest a choice is necessary to be made, it must be allowed that the traditions of

Greece are less inconsistent than those of the more distant regions of the earth. Oriental learning is now employed in unravelling the mythology of India, and recommending it as containing the seeds of primeval history; but hitherto we have seen nothing that should induce us to relinquish the authorities we have been used to respect, or to make us prefer the fables of the Hindoos or Guebres to the fables of the Greeks. Whatever difficulties may occur in the return of the Argonauts [8], their passage to Colchis is consistent; it contains more real geography than has yet been discovered in any record of the Bramins or the Zendavesta, and is truth itself, both geographical and historical, when compared with the portentous expedition of Ram [9] to Ceylon; it is from considerations of this sort that we must still refer our first knowledge of India to Grecian sources, rather than to any other; for whatever the contents of the Indian records may finally be found to have preserved, the first mention of India that *we* have, is from Greece, and to the historians of Greece we must still refer for the commencement of our inquiries; their knowledge of the country was indeed imperfect, even in their latest accounts, but still their very earliest shew that India had been heard of, or some country like India in the east; a glimmering towards day is discoverable in Homer, Heródotus, and Ctêsias; obscure indeed, as all knowledge of this sort was, previous to Alexander, but yet sufficient to prove that India was always an object of curiosity and inquiry.

[8] See Strabo, lib. i. pp. 21. 45. 46.
[9] See Maurice's History of Hindostan, vol. ii. p. 243.

HOMER.

III. The father of poetry is naturally the first object of our regard, his writings contain the history, the manners, and antiquities of his country; and though his information upon the point proposed may be problematical, still nothing that he has touched is unworthy of attention. When he conducts Neptune[10] into Ethiopia, he seems to place him in the centre between two nations both black, but perfectly distinguished from each other; and he adds, that they lived at the opposite extremities of the world east and west; let us then place the deity in Ethiopia above the Cataracts of Syênè, and let a line be drawn east and west, at right angles with the Nile; will it not immediately appear that this line cuts the coast of Nigritia on the west, and the peninsula of India on the east? and though it may be deemed[11] enthusiasm to assert, that Homer considered these as his two extremities, and placed his two Ethiopick nations in these tracts, which are their actual residence at pre-

[10] Θεοὶ δ' ἐλέαιρον ἅπαντες
Νόσφι Ποσειδάωνος, ὁδ' ἀσπερχὲς μενέαινεν
Ἀντιθέῳ Ὀδυσῆϊ, πάρος ἣν γαῖαν ἱκέσθαι.
Ἀλλ' ὁ μὲν Αἰθίοπας μετεκίαθε τηλόθ' ἐόντας,
(Αἰθίοπας τοὶ δίχθὰ δεδαίαται, ἔσχατοι ἀνδρῶν,
Οἱ μὲν δυσομένου Ὑπερίονος, οἱ δ' ἀνιόντος.)
Od. A. 19.

See the note upon this passage in Pope's translation of the Odyssey, where he adduces with great propriety the testimony of Strabo, to prove that all those nations were accounted Ethiopians by the early Greeks, who lived upon the Southern Ocean from east to west; and the authority of Ptolemy to shew, "that "under the zodiack from east to west, inhabit "the Ethiopians black of colour." The whole passage in Strabo, and the various reading of Aristarchus and Crates, are well worth consulting. Lib. i. p. 30.

[11] Ἔπειθ' Ὅμηρος ἐ διὰ τοῦτο διαιρεῖ τὴς Αἰθίοπας ἢ ὅτι τὴς Ἰνδὴς ἤδει τινὰς τοιούτους τοῖς σώμασιν· ἐδὲ γὰρ ΑΡΧΗΝ εἰδέναι τὴς Ἰνδὴς εἰκὸς Ὁμηρον. Strabo, Lib. ii. p. 103. it is not probable that Homer knew India at all. In this we may so far agree with Strabo, that Homer did not know India as the country of Hindoos;—he did not know it even by name; but he knew that there were people of a black colour at the two extremes from Egypt, east and west; and consequently this knowledge extended on the east beyond Arabia, for the Arabs are not black.

sent, still it is not too much to say, that the centre he has assumed is the most proper of all others, that the distant Ethiopians[12] to the east of it, are Indians, and to the west, Negroes. These two species are perfectly distinguished by their make, by their features, and above all by their hair; whether Homer knew this characteristic difference does not admit of proof, but that he knew they were of a separate race is undeniable, and that he placed them east and west at the extent of his knowledge, is an approximation to truth, and consistent with their actual position at the present hour.

HERODOTUS.

IV. The distinction which Homer has not marked, is the first circumstance that occurred to Heródotus; he mentions the eastern Ethiopians considered as Indians, and differing from those of Africa expressly by the characteristic[13] of long hair, as opposed to the woolly head of the Cafrè. We may collect also, with the assistance of a little imagination, the distinct notice of three sorts of natives, which correspond in some degree with the different species which have inhabited this country in all ages. The Padêi on the north[14], who are a savage people

[12] Ἔσχατοι.

[13] Lib. vii. p. 541.

[14] If the situation of the Padêi were ascertained, we might inquire about the manners attributed to them by the historian; but he mentions only some tribes that live upon the marshes formed by *the* river (that is, probably the Indus), and then the Padêi to the east of these; this places them on the north of India: as to all appearance the marshes noticed are those formed by the rains in the Panjeab, but how far east beyond this province we are to fix the Padêi is indefinite. I cannot suppose that Heródotus had received any report of the nations north of the Himmalu Mountains, or else I should offer a conjecture to the Orientalists, whether Padêi, converted into Pudêi, might not allude to Budtan; for a and u are convertible, as is evident in Multan, which is only another form of reading Mul-tan for Mal-tan or Mallistan, the country of the Malli. Rennell on Herod. 310. says, Padda is the

resembling the tribes which are still found in the northern mountains, mixed with Tartars perhaps, and approaching to their manners; a second race living far to the south, not subject to the Persian empire[15], and who abstain from all animal food; under this description we plainly discover the real Hindoos; and a third inhabiting Paktúia and Caspatúrus, who resemble the Bactrians in their manners, dress, and arms, who are subject to Persia, and pay their tribute in gold; these, whether we can discover Caspatúrus or not, are evidently the same as those tribes which inhabit at the sources west of the Indus; who never were Hindoos, but possess a wild mountainous country, where their fastnesses qualify them for a predatory[16] life, and where they were equally formidable to Alexander, to Timour, and Nadir Shah[17]; they resemble to this day the Bactrians, as much as in the time of Heródotus, or rather the Agwhans in their neighbourhood; and are as brave as the one, and as ferocious as the other. These tribes it is more necessary to mark, because it will prove that the Persians never were masters of India properly[18] so called, but of that country only which is at the source of the Indus. Whether they penetrated beyond the main stream, that is the Indus or the Attock itself,

name of the Ganges; but are not Padda and Ganga both expressive of a river? for there is a Padda and a Ganga in the Carnatick, as well as in Bengal.

[15] Lib. iii. p. 248.

[16] See Goez's journey from Attock to Cabul. Purchas, iv. 311. from Trigault. Goez himself was plundered in this country.

[17] Nadir was glad to compound with these tribes, to let him pass unmolested with the plunder of the unhappy Mahomed Shah.

[18] Arrian, at the commencement of the Indica, expressly asserts, that the power of the Assyrians, the Medes, and Persians, did not extend beyond the Indus. Between the Cophês and Indus, he says, the tribes are called Assaceni and Astaceni, and their capital Massaca; and he notices another large city, Peukela; but Pecheli is not west of the Indus. Bazira is supposed to be Peishawer. He does not consider them as Indians, nor any others except those beyond the Indus, *i. e.* the Attock, the forbidden river. See Schmeider's Arrian, p. 8.

must be left in doubt; but Paktúia, according to Major Rennell, is Peukeli; and if Caspatúrus be the same as the Caspíra of Ptólemy, there is some ground for supposing that city correspondent to Multan. Should these conjectures be confirmed by future inquiry, it would prove that the Persians did pass the Attock, and were really masters of the Panjeab and Multan; and the tribute which they received, equal to half the revenues of the empire, affords some reason for supposing this to be the fact. Much depends upon the issue of this inquiry, because the Attock, or *forbidden* river, has been the western boundary of Hindostan in all ages; if the Persians passed it, India was tributary to them: if they did not, the tribes west of the Attock only were subjected, and these were never Hindoos, however esteemed so by the Persians. Another circumstance dependent on this inquiry, is the voyage of Skulax, said to have commenced from Pactúia and Caspatúrus, and to have terminated in the Gulph of Arabia. There are two inconsistencies in the report of this voyage by Heródotus; the first, that he mentions the course of the Indus to the east [19], which is in reality to the south-west; the second, that he supposes Darius [20] to have made use of the discoveries of Skulax for the invasion of India. Now if Darius was master of the Attock, Peukeli, and Multan, he wanted no information concerning the entrance into India, for this has

[19] See Hyde Rel. Vet. Persarum, cap. xxiii. who is half disposed to make Sculax navigate the Ganges on account of its eastern direction. He hesitates only because Sculax must have returned to the north again from C. Comorin to survey the mouths of the Indus. See Wesseling apud Herod. lib. iv. p. 300. note 34.

[20] Hystaspes father of Darius is the Gushtasp of the Zendavesta, and king of Balk or Bactria; but I have never been able to discover, that the Persian Darius of the Greeks, or his father Hystaspes, can be identified with the Bactrian Gushtasp of the Zende or Oriental writers; and I see Richardson in the preface to his Persian Dictionary assigns no real antiquity to the Zende of Anquetil du Perron. See Cudworth's Intellectual System, p. 287.

been the route of every conqueror; or if he obtained any intelligence from Skulax, it is certain that neither he, nor his successors ever availed themselves of it, for any naval expedition. The Persians were never a maritime people. History no where speaks of a Persian fleet in the Indian ocean, or even in the Gulph [21] of Persia; and in the Mediterranean, their sea forces always consisted of Phênicians, Cyprians, or Egyptians.

Far is it from my wish wantonly to discredit any historical fact supported on the testimony of such a writer as Heródotus; but there are insuperable difficulties in admitting this voyage of Skulax, or that of the Phênicians round the continent of Africa; the greatest of all is, that no consequences accrued from either. That Heródotus received the account of both from Persians or Egyptians, is undeniable; that they were performed is a very different consideration. I do not dwell upon the fabulous [22] part of his account of India; because even his fables have a foundation in fact [23]; but I cannot believe from the state of navigation in that age, that Skulax could perform

[21] I speak of a navy, not ships for trade.

[22] What the fable is of the ants which turned up gold, and the manner of collecting it by the natives, I cannot determine; but it is possible, that as our knowledge of India increases, it will be traced to its source; and one thing is certain, that it is a tale existing from the time of Heródotus to the age of De Thou; it is countenanced likewise in the Letters of Busbequius, who saw one of these ants [skins] (an Indian ant as big as a dog, p. 318. Eng. ed.) sent as a present from the king of Persia to the Porte. See Larcher, tom. iii. p. 339. Another fable, totally dissonant to the ordinary manners of the Hindoos, I shall give in the words of the historian, Μίξις δὲ τούτων τῶν Ἰνδῶν τῶν κατέλιξα πάντων ἐμφανής ἐστι, καταπερ τῶν προβάτων, lib. iii. 248. quod populo universo nequaquam objiciendum est, sed originem ducit ex illo spurcissimo commercio fœminarum prolis desiderio laborantium, cum Hylobiis et Heautontimoreumenis. I can, upon similar principles, account for the greatest part of the fables imputed to Megásthenes, Dáimachus, and Onesícritus. Lt. Wilford explains Ctêsias's fable of the Martíchora.

[23] Not all indeed, for his voyage of Hercules to Scythia is mere mythology. I do not use this to discredit the voyage of Skulax; my object is to mark fable as fable, and to select the truths mixed with it for observation. See Herod. lib. iv. p. 283. ed. Wess.

a voyage round Arabia, from which the bravest officers of Alexander shrunk; or that men who had explored the desert coast of Gadrôsia, should be less daring than an unexperienced native of Caryanda. *They* returned with amazement from the sight of Mussendon, while Skulax succeeded without a difficulty upon record. But the obstacles to such a voyage are numerous, first, whether Paktúia be Peukeli, and Caspaty'rus, Multan: secondly, if Darius were master of Multan, whether he could send a ship, or a fleet, down the Indus to the sea, though tribes where Alexander fought his way at every step: thirdly, whether Skulax[24] had any knowledge of the Indian Ocean, the coast, or the monsoon: fourthly, if the coast of Gadrôsia were friendly, which is doubtful, whether he could proceed along the coast of Arabia, which must be hostile from port to port. These and a variety of other difficulties[25], which Nearchus experienced, from famine, from want of water, from the built of his vessels, and from the manners of the natives, must induce an incredulity in regard to the Persian account, whatever respect we may have to the fidelity of Heródotus.

[24] That there was such a person as Skulax, that he was in India, and that his account of that country was extant, appears from Aristotle's Politicks, lib. vii. in Dr. Gillies's translation, book iv. p. 240. I learn likewise from Larcher, that the Baron de Sainte Croix defends the work which now bears the name of Skulax as genuine, in a dissertation read before the Academy of Inscriptions; but I know not whether that dissertation be published. See Larcher's Herod. tom. iii. p. 407. I have one objection to its authenticity, which is, his mention of Dardanus, Rhêtêum and Ilium in the Troad, p. 35. for there is great doubt whether Rhêtêum was in existence in the time of the real Skulax; and of India, he says nothing in the treatise now extant.

[25] Strabo says, Posidônius disbelieved this whole history of Skulax, though he believed the voyage of Eudoxus, lib. ii. p. 100. The fact is, there were so many of these voyages pretended, and so few performed, that the best judges did not know what to believe; Strabo believed nothing of the circumnavigation of Africa. See lib. i. p. 32.

CTESIAS.

V. Next to Heródotus, at the distance of little more than sixty years, succeeds Ctêsias. He resided a considerable time in the court of Persia, and was physician to Artaxerxes Mnêmon. What opportunities he had of obtaining a knowledge of India must have been accidental, as his fables are almost proverbial, and his truths very few; his abbreviator Photius, from whose extracts alone we have an account of his works, seems to have passed over all that he said of Indian manners; and to have preserved only his tales of the marvellous. The editor [26],

[26] Ctêsias says, there is a pool which is annually filled with liquid gold; that an hundred measures (πεοχόαι) of this are collected, each measure weighing a talent; at the bottom of this pool is found iron, and of this iron he had two swords, one presented to him by the king, and the other by Parysâtis the king's mother. The property of these swords was, that when fixed in the ground they averted clouds, hail, and tempests; he saw the king make the experiment, and it succeeded.

In regard to my former note on this passage, I am first to do justice to M. Wesseling, to whom I erroneously imputed a defence of Ctêsias's veracity. I should have been correct, if I had imputed it to Henry Stephens's dissertation prefixed to Ctêsias, in M. Wesseling's edition.

I had likewise said that "some ingenious "modern might quote πρηστήρων ἀποτρόπαιος, "the expression of Ctêsias, to prove that iron "was known to be a conductor in that age, "and that electricity was concerned in the ex- "periment."

On this subject I received a paper from Mr. Alwood, in which he adopts the supposition I had advanced. I will therefore no farther support my charge of absurdity against Ctêsias, than to maintain that the necessity of having these swords made from the iron found in the golden fountain is an absurdity still, as we now know that all iron has the same property. This effect was not, and could not be, unknown to the ancients; for the fire of Castor and Pollux, the St. Elmo's light, is recorded upon a variety of occasions; and frequent notice is likewise taken of the flame on the head of spears [hastæ militum arsere]. All this we now know to be electrical. But if the Persians had learnt that in these instances iron was a conductor, and averted the mischief of lightning, they had certainly advanced one step above others in the science, and are the first electricians upon record. It is common to all science, that the effect is known before the cause, and the application of the effect to its proper use. The pump was employed for ages before it was known that air could be weighed against water; and the mechanick powers were all used, before their force, or the means of exerting it to the best advantage, could be calculated. I am therefore perfectly ready to admit Mr. Alwood's interpretation of this

however, is very desirous of preserving the credit of his author, and that part of the work which relates to Persia is worthy of the estimation he assigns it; but we are not bound to admit his fable of the martíchora, his pygmies, his men with the heads of dogs and feet reversed, his griffins and his four-footed birds as big as wolves.—These fictions of imagination indeed are still represented on the walls of the Pagodas; they are symbols of mythology, which the Bramins pointed out to the early visitors of India, and became history by transmission.

The few particulars appropriate to India, and consistent with truth, obtained by Ctêsias, are almost confined to something resembling a description of the cochineal plant, the fly, and the beautiful tint obtained from it, with a genuine picture of the monkey and the parrot; the two animals he had doubtless seen in Persia, and flowered cottons emblazoned with the glowing colours of the modern chintz, were probably as much coveted by the fair Persians in the Harams of Susa and Ecbatana, as they still are by the ladies of our own country.

Ctêsias is contemporary with Xenophon, and Xenophon is prior to Alexander by about seventy years; during all which period, little intelligence concerning India was brought into Greece; and if the Macedonian conquests had not penetrated beyond the Indus, it does not appear what other means might have occurred of dispelling the cloud of obscurity in which the eastern world was enveloped.

passage, and to allow that honour which he claims for the Persians of discovering this property in iron, which is in fact the greatest advance, in point of utility, which has hitherto been derived from our knowledge of the cause, or our progress in the science of electricity.

Ctêsias styles the pool Sides; Arrian, from Megásthenes, mentions a river and spring, called Silas, on which wood would not swim; Strabo speaks of a Silia, p. 484.; and Pliny, of Silla. Schmeider, Arriani Indica, p. 36.

The Macedonians, as it has been shewn in a former work, obtained a knowledge both of the Indus and the Ganges; they heard that the seat of empire was, where it always has been, on the Ganges, or the Jumna. They acquired intelligence of all the grand and leading features of Indian manners, policy, and religion: they discovered all this by penetrating through countries where possibly no Greek had previously set his foot; and they explored the passage by sea, which first opened the commercial intercourse with India to the Greeks and Romans, through the medium of Egypt and the Red Sea; and finally to the Europeans by the Cape of Good Hope.

It matters not that the title of fabulists is conferred upon Megásthenes, Nearchus, and Onesícritus, by the ancients; they published more truths than falsehoods, and many of their imputed falsehoods are daily becoming truths, as our knowledge of the country is improved. The progress of information from this origin is materially connected with the object we have proposed, and it cannot be deemed superfluous to pursue it through the chain of authors, who maintain the connection till the discovery of the passage across the ocean by means of the monsoon.

Megásthenes and Dáimachus[27] had been sent as ambassadors from the kings of Syria to Sandrocottus and his successor Allitróchades; the capital of India was in that age at Palibóthra, the situation of which, so long disputed, is finally fixed[28], by Sir

[27] Bruce says, Megásthenes and Denis, from Ptolemy king of Egypt, vol. i. p. 461. He followed French authority, and he is not in the habit of citing his authorities; but there is a Diony'sius mentioned as sent from Egypt.

[28] It is now unfixed again, in the opinion of Captain Wilford, and brought to Raje Mahal, thirty miles above the Delta of Bengal, where there is no junction of rivers, and where, if we fix it, we must bring a river to the place, as Rennell did at Canouge. See As. Res. vol. v. p. 272. Lond. ed.

William Jones, at the junction of the Saone and the Ganges. These ambassadors, therefore, were resident at a court in the very heart of India, and it is to Megásthenes in particular that the Greeks are indebted for the best account of that country. But what is most peculiarly remarkable is, that the fables of Ctêsias were still retained in his work; the Cynocéphali, the Pigmies, and similar fables were still asserted as truths. It is for this reason that Strabo[29] prefers the testimony of Eratósthenes and Patrócles, though Eratósthenes was resident at Alexandria, and never visited India at all; and though Patrócles never saw any part of that country beyond the Panjeab. Still their intelligence he thinks is preferable, because Eratósthenes had the command of all the information treasured in the library of Alexandria; and Patrócles was possessed of the materials which were collected by Alexander himself, and which had been communicated to him by Xeno the keeper of the archives.

It is inconceivable how men could live and negotiate in a camp on the Ganges, and bring home impossibilities as truth; how Megásthenes could report that the Hindoos had no use of letters[30], when Nearchus had previously noticed the beautiful appearance of their writing, and the elegance of character, which we still discover in the Shanskreet[31]; but the fabulous accounts of Ctêsias were repeated by Megásthenes, professedly

[29] Lib. ii. in initio, p. 70.

[30] Strabo, lib. xv. p. 709. an imputation on Megásthenes, which the good father Paolino is very unwilling should attach to him. See his Dissertation De veteribus Indis, in answer to Augustinus Georgius, author of the Thibet Alphabet, p. 12.

[31] Shanskreet, or Sanscrit, is the mode of writing this word, which has prevailed among our English writers. I always prefer the most popular, but Paolino writes Sams Crda, lingua perfecta, p. 258. or Krda = perfecta, Sam = simul, coëval with creation.

from the authority of the Bramins; and whatever reason we have to complain of his judgment or discretion, we ought to acknowledge our obligations to him as the first author who spoke with precision of India, or gave a true idea of the people.

It is not possible to enter into the particulars of all that we derive from this author, but the whole account of India, collected in the fifteenth book of Strabo, and the introduction to the eighth book of Arrian, may justly be attributed to him as the principal source of information. His picture is, in fact, a faithful representation of the Indian character and Indian manners; and modern observation contributes to establish the extent of his intelligence, and the fidelity of his report.

This source of intelligence, commencing with Alexander and concluding with Megásthenes and Dáimachus, may be classed under the title of Macedonian, as derived from Alexander and his successors: for such knowledge of the country as could be acquired by a hasty invasion, by the inspection of travellers and ambassadors, or by the voyage down the Indus, the Macedonians seem to have attained with singular attention, and, notwithstanding particular errors, to have conveyed into Europe with much greater accuracy than might have been expected.

The voyage of Nearchus opened the passage into India by sea, and obviated the difficulties of penetrating into the east by land, which had previously been an insurmountable barrier to knowledge and communication. But it is to Onesícritus[32] we

[32] To Onesícritus only, if we follow Strabo or Pliny, vi. 24. who, he says, mentions elephants there larger and more fit for war than elsewhere, a truth to this day. Megásthenes notices a river, gold and pearls, and that the people are called Palêógoni. Eratósthenes seems to have enlarged upon the size given it by Onesícritus, for instead of 625 miles, he says it is 875 miles long, 625 broad. In Pliny's age the north-eastern side was grown

trace the first mention of Tapróbana, or Ceylon, and what is extraordinary, the dimensions he has assigned to it, are more conformable to truth [33], than Ptolemy had acquired four hundred years later, and at a time when it was visited annually by the fleets from Egypt; but on this subject more will be said in its proper place.

IAMBULUS.

VI. The mention of Ceylon naturally introduces us to the voyage of Iambûlus [34], because, fabulous as his account is, it is still most probably founded on fact, and because Diodôrus has ranked it as history.

Lucian [35], perhaps, formed a better judgment when he classed him with the writers of fiction; for his account of the Fortunate Islands and that of Ceylon stand almost on the same ground; the circumference of the Island he seems to give at five thousand stadia from Onesícritus, and the navigation across the ocean from Ethiopia he derived from the general knowledge that this voyage had been performed, or imputed, from a very early

to 1250 miles, and the error was always on the increase till the time of Ptolemy. Pliny adds, that Rachia [Rajah] was the head of the embassy to Rome, and that Rachia's father had visited the Sêres. One incidental circumstance seems to mark Arabian intercourse previous to the voyage of Annius Plókamus's freed man. Regi, cultum Liberi Patris, cæteris, *Arabum*, the king worshipped Bacchus, the people on the coast followed the rites of the *Arabians*. The king wore the garment of India, the people (on the coast) that of the *Arabians*. He adds also, that Hercules was worshipped, that is, Balî, the Indian Hercules. Whence both Palêógoni, and Palêsimoondus. This, however, ought not to be asserted without giving due weight to Paolino, who derives Palêsimoondus from Parashri mandala, the kingdom of Parashri, and Parashri is the Indian Bacchus.

[33] He makes it 625 miles, without mentioning length or breadth; it is in reality near 280 miles long, and 138 broad; but Ptolemy extends it to more than 966 miles from north to south, 759 from west to east.

[34] See Harris, vol. i. 383. and Ramusio.

[35] Luc. de vera historia, i. cap. 3. γνώϛιμον μὲν ἅπασι τὸ ψεῦδος πλασάμενος, ἐπ ἀτερπῆ δ' ὅμως συνθεὶς τὴν ὑπόθεσιν, Wesseling in lib. ii. 167. Diod.

age; his departure from Ceylon to the Ganges, his arrival at Palibóthra, and his intercourse with the king, who was an admirer[36] of the Greeks, may be referred to Megásthenes and Dáimachus, while his fictions of impossibilities are all his own. Notwithstanding all this there are some allusions to characteristick truths, which though they do not bespeak the testimony of an eye-witness, prove that some knowledge of the island had reached Egypt, and this at a time previous to the discovery of the monsoon; for Iambûlus must be antecedent to Diodôrus, and Diodôrus is contemporary with Augustus. It is this single circumstance that makes it requisite to notice such an author. The truths alluded to are, I. The stature of the natives, and the flexibility of their joints. II. The length of their ears, bored and pendent. III. The perpetual verdure of the trees. IV. The attachment of the natives to astronomy. V. Their worship of the elements, and particularly the sun and moon. VI. Their cotton garments. VII. The custom of many men having one wife in common, and the children being entitled to the protection of the partnership. (This practice is said by Paolino[37] to

[36] Φιλέλλην, though there be nothing in this word to raise admiration in general, but at the strangeness of the circumstance, how a king of Palibóthra should know enough of Greeks to be fond of the nation: there is still a secret allusion of much curiosity, which is this, the native chiefs who raised themselves to independence on the ruins of the Syrian monarchy, (whether from the number of Greeks in the east, or from the popularity of the Grecian sovereignty, is hard to determine,) assumed the title of Φιλέλλην; and this term is still found inscribed in Greek letters upon the coins of the first usurpers of the Parthian dynasty. See Bayer. p. 105. It seems, therefore, highly probable, that the inventor of this tale of Iambûlus knew that some of the eastern potentates were styled lovers of the Greeks; and he has ignorantly applied this title to a sovereign of India, which appertained properly to those only who reigned in the north of Persia. This seems an additional proof of the imposture; the author knew a curious piece of secret history, but did not know how to apply it.

[37] Paolino was a Romish missionary in Travencore for thirteen or fourteen years; his work was published at Rome: he is sometimes mistaken on classical questions, but still it is a learned and instructive work, p. 378.

exist still on the coast of Ceylon, and is apparently conformable to the manners of the Nayres on the continent.) VIII. Equality of day and night. IX. The Calamus or Maiz. And it is submitted to future inquiry, whether the particulars of the alphabet may not have some allusion to truth; for he says, the characters are originally only seven, but by four varying forms or combinations they become twenty-eight.

The chief reason to induce a belief, that Iambûlus never really visited Ceylon, is, that he should assert he was there seven years, and yet that he should not mention the production of cinnamon. There is no one circumstance that a Greek would have noticed with more ostentation than a discovery of the coast where this spice grew; but Iambûlus, like the rest of his countrymen, if he knew the produce, adjudged it to Arabia, and never thought of this leading truth, as a sanction to the construction of his fable; he is described by Diodôrus as the son of a merchant, and a merchant himself, but possessed of a liberal education. In trading to Arabia for spices, he was taken prisoner and reduced to slavery; he was carried off from Arabia by the Ethiopians, and by them committed to the ocean, to be driven wherever the winds might carry him; and in this case his reaching Ceylon would be the least improbable[38] part of his narrative. No means occur to settle the date of this history, but the allusion to known truths makes it

[38] P. Luigi Maria de Gesu, a Carmelite, afterwards Bp. of Usula, and Apostolick Vicar of the coast of Malabar, coming round Cape Comorin in a native vessel, was carried over to the Maldives, and thence to the coast of Africa. Paolin. p. 83. Annius Plókamus was carried in a contrary direction from Arabia to Ceylon; and in fact, whenever a vessel, on either coast, is by accident forced out of the limit of the land and sea breeze, she will be caught by the monsoon, and carried over to the opposite continent. To accidents of this sort we may impute a very early discovery of the monsoons by Arabians or Ethiopians, long before Hippalus imparted it to the Greeks and Romans.

curious, even if it be a novel. These truths could have been obtained only from report in the age of Diodôrus[39], and the wonder is, that it contains a circumstance dependent on the monsoon, of which Diodôrus was himself ignorant, and which was not known to the Greeks and Romans till near a century later. I dare not claim it as a *proof*, that the Arabians sailed by the monsoon at this time, but the scene is laid in Arabia, and the passage is made from the coast of Africa, as that of the Arabians really was; and it is natural to conclude, that the Arabians did really sail to Ceylon in that age, though the Greeks and Romans did not. The embassy from Pandíon to Augustus cannot be a fiction, and the ambassadors must have sailed from India, either on board Arabian ships, which frequented their harbours, or in Indian vessels which followed the same course. All this is previous to Híppalus, and the whole taken together is a confirmation of an Arabian navigation previous to that from Egypt. That a novel should contain historical facts and truths is natural, and will not be denied by those who are acquainted with Heliodôrus. Many Ethiopick customs[40] are noticed in that work, which are true to this day. After all, the novel of Iambûlus is not so surprizing in itself, as its existence in the page of Diodôrus.

[39] Harris or Dr. Campbell are my precursors in this examination of Iambûlus and Agathárchides. They gave credit to Iambûlus, I here give the reasons for my dissent. Purchas joins with me in opinion. Vol. ii. p. 80.

[40] The Nagareet drums, so often noticed by Bruce, are discoverable in this work.

AGATHARCHIDES.

VII. AGATHARCHIDES[41], the next object of our consideration, is an author of far different estimation; he was president of the Alexandrian library, and is always mentioned with respect by Strabo, Pliny, and Diodôrus[42]. His work on the Erythrêan or Red Sea, is preserved in an extract of Photius, and copied almost in the same terms, but not without intermixture[43], by Diodôrus. Diodôrus indeed professes to derive his information from the royal commentaries, and original visitors of the countries he describes; but that he copies Agathárchides is evident, by a comparison of this part of his work with the extract of Photius; or, perhaps, considering Agathárchides as librarian, he conceived that his work was founded on the commentaries or archives of the Alexandrian depository. Strabo[44] likewise follows Agathárchides in almost all that relates to Ethiopia, the countries south of Egypt, and the western coast of Arabia[45], or rather, as Wesseling has observed, with

[41] It is with much regret that I confess my neglect of this author, from whom I might have corroborated many circumstances in the voyage of Nearchus. A cursory perusal had induced me to view his errors in too strong a light; if justice be done to him on the present review, it is no more than he merits.

[42] Diodôrus speaks of Agathárchides and Artemidôrus, as the only authors who have written truth concerning Egypt and Ethiopia. Lib. iii. 181.

[43] In confirmation of this assertion, we may mention a passage, lib. iii. p. 208. Diod. where an allusion is evidently made to the separation of the waters of the Red Sea, as recorded by Moses; it is received in this sense by Grotius, Bochart, and Wesseling; and if this was in Agathárchides, it could hardly have been omitted by Photius, a Christian bishop: if it was not in Agathárchides, it is plain that Diodôrus joined other authorities to his. This is given as a conjecture, but it is of weight.

[44] Lib. xvi. p. 769.

[45] Diod. lib. iii. p. 205. not. καλαμών, &c. but Strabo cites both, p. 769.

his usual accuracy, both copy Artemidôrus [46] of Ephesus [47], who is the copyist of Agathárchides.

It is necessary to pay more attention to this author, as he is apparently the original source from which all the historians drew, previous to the discovery of the monsoon; his work forms an epoch in the science, and when Pliny comes to speak of the discoveries on the coast of Malabar in his own age, and adds, that the names he mentions are new, and not to be found in previous writers; we ought to consider him as speaking of all those, who had followed the authority of the Macedonians, or the school of Alexandria, of which, in this branch of science, Eratósthenes and Agathárchides were the leaders.

Eratósthenes [48] was librarian of Alexandria under Ptolemy Euérgetes I. and died at the age of eighty-one, 194, A.C. He was rather an astronomer and mathematician than a geographer, and is honoured with the title of surveyor of the earth [49], as the first astronomer who measured a degree of a great circle [50], and drew the first parallel of latitude, the sublime attempt on which all the accuracy of the science depends.

It appears from Strabo and Pliny, that Eratósthenes speaks of Meroè, India, and the Thinæ, and of the latter as placed incorrectly in the more ancient maps. How this nation, which was the boundary of knowledge in the age of Ptolemy, (and

[46] Diod. lib. iii. p. 774.

[47] There are two Artemidôrus's of Ephesus. See Hoffman in voce. This Artemidôrus lived in the reign of Ptolemy Lathyrus, anno 169, A. C.

[48] Sphæram terrestrem descripsit Eratosthenes in fragmentis τῷ Ἑρμῇ, apud Heraclidem, c. 50. Heyne notæ in Hom. Σ. 481, & 490. See Heraclitus de Allegoriis Homericis. Heyne, O. 18. See Excursus iii. ad lib. xxiii. nota ad pag. 564. Heraclides, vel Heraclitus, a Nich. Schow Editus, non duo sunt, sed unus diverso nomine.

[49] See his eulogium in Pliny, lib. ii. c. 112.

[50] Hipparchus is later than Eratósthenes; he is supposed to have lived to 129, A.C.

which, if it does not intimate China, is at least as distant as the golden Chersonese of Malacca,) found its way into charts more early than Eratósthenes, will be considered in its proper place; but his knowledge of Meroè and Southern Africa is derived from Dálion, Aristócreon, and Bion, who had been sent by Philadelphus, or his successors, into that country, or from Timósthenes [51], who sailed down the coast of Africa as low as Cernè [52]. His information concerning India must be deduced from the Macedonians, but his information is confined on the subject of Oriental commerce; the spherical figure of the earth seems to be the grand truth he was desirous to establish, and his geographical inquiries were perhaps rather the basis of a system, than a delineation of the habitable world.

Agathárchides, according to Blair, must, though younger, have been contemporary with Eratósthenes; he was a native of Cnidus in Caria, and flourished 177, A. C. But Dodwell [53] brings him down much lower, to 104, A. C. which can hardly be true, if Artemidôrus [54] copied his work, for the date of Artemidôrus is attributed to 104, A. C. also, the same year which Dodwell gives to Agathárchides.

These dates are of importance, if we assume the work of Agathárchides as an epoch, which in fact it seems to be, and the principal authority for the subsequent historians, previous to the discovery of Hîppalus; his work it is by no means necessary to vindicate in all its parts, but it contains many pe-

[51] What credit Timósthenes deserves is dubious, as Pliny mentions, that he makes the Red Sea only four days sail in length and two broad, if I understand the passage. Lib. vi. c. 33.

[52] Sometimes supposed to be Madagascar. See infra.

[53] Bruce says, in the reign of Ptolemy IX. 100, A. C. but does not say a word of the contents of his work, i. 467.

[54] See Diod. iii. 181. Wessel. note.

culiar truths[55] confirmed by modern experience, and the first genuine characteristicks of Southern Africa that occur in history.

Some of these circumstances, though not connected with the purpose before us, cannot be superfluous, as they contribute to establish the credit of the work; these are, I. The gold mines[56] worked by the Ptolemies on the coast of the Red Sea; the process; the sufferings of the miners; the tools[57] of copper found in them, supposed to have been used by the native Egyptians, prior to the Persian conquest. II. In Meroè, or Abyssinia, the hunting of elephants, and hamstringing them; the flesh cut out of the animal alive[58]. III. The fly, described as the scourge of the country in the same manner as by Bruce. IV. Something like the ensete tree of Bruce. V. Locusts described as food. VI. Troglodytes. VII. The rhinóceros, the camelopard, apes[59] strangely called sphinxes[59], the crocotta[59] or hyena; se-

[55] Great moderation is due in judging all writers who speak of a country in the first instance. Things are not false because they are strange. See Diodôrus, lib. iii. p. 199, Πολλὰ δὲ καὶ ἄλλα τῶν παραδόξοτερα συντελεῖται, τοῖς μὲν ἀγνοοῦσιν ἄπιστα, τοῖς δὲ πεῖραν εἰληφόσιν, ἀνυπομόνητα.

[56] These mines are noticed both in Ebn Haukal and Al Edrissi, p. 18. Aurifodina in terra Bogæ distat ab urbe Asuan (Syene), quindecim dierum itinere, medio inter orientem et septentrionem, which is exactly the Troglodytick coast.

[57] A very extraordinary fact, and similar to what has happened in our own age. According to Col. Vallancy, instruments have been found in the mines in Ireland which he supposes to be Phênician; and others have been found in the mines in Wales, which are certainly Roman.

[58] Strabo also mentions the Κρεώφαγοι, which perhaps intimates eaters of *raw* flesh, and the excisio fœminarum, in a passage where he seems to be copying Agathárchides or Artemidôrus. The original here does not specify the flesh from living oxen, but elephants. See Strabo, lib. xvi. p. 771.

[59] The sphinxes are supposed to be apes by Wesseling, and from their tameness it is probable. The crocotta I translate hyena, because it is said to be between a wolf and a dog; from the mention of its imitating the human voice, it may be the shackall. I cannot help noticing that the animals enumerated by the author are all named in the same manner on the celebrated Palestrine Mosaick. Hardouin thinks that the distinction of these sphinxes from the common ape, was in the face, smooth and without hair. Ad Plin. lib. vi. See the Krokotas on the Palestrine marble, which I am not naturalist sufficient to appropriate.

This marble is illustrated by Barthelemi, in the 30th vol. of the Academy of Inscriptions, p. 503. An. Reg. 1796, p. 356.

veral other minute particulars might be enumerated, but not without a tincture of the fabulous.

His account of the coast is our more immediate concern; this commences at Arsînoè, or Suez, and goes down the western side of the Red Sea to Ptolemáis Thêrôn [60], it mentions Muos Hormus, but takes no notice of Bereníkè. The particulars of this navigation are very scanty, but still one fact is substantiated, that the ordinary course of trade carried on, went no lower than Ptolemáis, and was confined more especially to the importation of elephants.

Ptolemáis is the Ras Ahehaz of d'Anville, the Ras Ageeg of Bruce, in latitude 18° 10′ [61], and full three hundred and fifty miles short of the straits of Bab-el-Mandeb. A proof that whatever Ptolemy Philadelphus had discovered of the coast of Africa, it was now little visited by the fleets from Egypt, but

I have examined the dissertation of Barthelemi, and find that he supposes it an offering of one Hermaiscus, a freedman of Hadrian, and a Greek, at Præneste, in memory of Hadrian's visit to Egypt; and that the figure in the front of the temple is Hadrian received by the city of Elephantinè, and the scenery represents the season of the inundation. But there is one circumstance Barthelemi has paid little attention to, which is, that the buildings are Greek or Roman, rather than Egyptian. This seems a direct proof that the Mosaick was executed in Italy, upon Egyptian information, and after Egyptian memoirs; and this is, perhaps, the reason why so little resemblance to nature is found in the animals: they are taken from the description in books, not from life or drawings of life; and such descriptions as these are found in Agathârchides, and those who copied him, as Diodôrus, Strabo, &c. &c.

There is in the representation of the Mosaick a perfect distinction between the figures which are Roman, Greek, or Egyptian, and those which are Ethiopian; and there is likewise in all probability a just representation of the penteconterus, (*i. e.* the galley of fifty oars, for that number it has) and not a trireme, as Barthelemi calls it, with the Phaseli, Coricles, &c. &c. of the natives of all descriptions. But query, whether Anubis is ever represented in any genuine Egyptian monument as here, like a dog? Is not Latrator Anubis a man with a dog's head? a proof that this Mosaick is not Egyptian.

[60] So called from Θηρα, because the elephants were here hunted and taken; they are so still according to Bruce, and below this cape, de la Rochette places the commencement of a vast forest, seen by all vessels which keep this coast.

[61] 18° 7′. de la Rochette.

that there was some sort of commerce is certain; Strabo cites Eratósthenes[62] to prove that the passage of the straits was open, and Artemidôrus, to shew the extension of this commerce to the Southern Horn; of this there will be frequent occasion to speak hereafter, neither ought it to be omitted, that perhaps Agatharchides knew the inclination of the African coast beyond the straits, for he notices its curvature[63] to the east, [which terminates at Gardefan,] and which is apparently the boundary of his knowledge in that quarter; but our immediate business is with the coast between Muos Hormus and Ptolemáis, and here the first place mentioned is the Sinus Impurus[64], which admits of identification with the Foul[65] Bay of our modern charts, from the circumstances mentioned by Strabo, who says, it is full of shoals and breakers, and exposed to violent winds, and that Berenikè lies in the interior of the bay[66].

Below this, Agatharchides, or his abbreviator, afford little information, for we are carried almost at once to two mountains, called the Bulls and Ptolemáis Thêrôn, without any intervening circumstance but the danger of shoals, to which the elephant ships from Ptolemáis[66] are exposed: of these shoals there are many about Suakem in de la Rochette, though Bruce denies the existence of a single one on the whole western coast of the Red Sea. The geographer, however, is more to be depended on than the traveller, as is proved by the misfortunes to

[62] Lib. xvi. p. 769.

[63] I am not certain whether this relates to the coast within the gulph or without, but he mentions the islands at the straits, and the prodigies beyond them.

[64] Κόλπος ἀκάθαρτος.

[65] Ἐν βύθει τῷ κόλπῳ. Strabo, p. 770.

[66] The identical position of Ptolemais may not be discoverable; but the track is self-evident. Upon consulting de Castro, in Purchas, iii. p. 1134. Shoals, rocks, sands, &c. "so that it should seem rather we might go "it on foot, than sail it, yea in small "boats."

which some of our English vessels have been exposed, which verify the assertions of Eratósthenes, Artemidôrus, and Agathárchides.

At Ptolemáis the account closes, as if there were no regular commerce below that point; but its existence has been evinced by what is here said, and will be farther confirmed from the Adulitick marble in its proper place; the total silence of Agathárchides, in regard to Bereníkè, unless it be an omission of his abbreviator, is still more unaccountable; it appears, indeed, as if the caravan road from Coptus to this place, was a much greater object of attention under the Roman government than under the Ptolemies. The accounts extant are all Roman; from Pliny, from the Itinerary, and from the Peutingerian tables; but the Greek authorities may have perished, and Strabo mentions two different states of these roads; one from Coptus to Bereníkè as it was first opened by Philadelphus, and another from Coptus to Muos Hormus, after it was furnished with wells and reservoirs, and protected by a guard. Are we then to think that this, after being opened, was neglected again, when Agathárchides wrote? or are we to suppose that Bereníkè is comprehended in the mention of Muos Hormus[67]? for Bereníkè is no harbour[68], but an open bay, and the ships which lade there, lie at Muos Hormus till their cargo is ready. However this may be, the account of Agathárchides returns again from Ptolemáis to Muos Hormus, and then, after passing the gulph of Arsínoè, or Suez, crosses over to Phênícôn[69] in the Elanitick

[67] It should rather seem from this that the road from Coptus to Muos Hormus (which was the nearest) was more frequented than that to Bereníkè, and that the latter was never materially in use, till the time of the Romans.

[68] Strabo, lib. xvii. p. 815. Βερενίκην ἀλίμενον μὲν, τῇ δὲ εὐκαιρίᾳ τοῦ ἰσθμοῦ καταγωγὰς ἐπιτηδείους ἔχουσαν· and infra ἐκ ἄπωθεν δὲ τῆς Βερενίκης ἐστὶ Μυὸς Ὅρμος πόλις ἔχουσα ναύσταθμον τῶν πλωιζομένων.

[69] De la Rochette places Phênícôn at Tor, and there are two places of this name.

Gulph, and runs down the coast of Arabia to Sabêa. In this course of great obscurity, there is no occasion at present to pursue the track throughout, as it will be resumed in the third book, when the account of the Periplûs is to be examined, and such light as is to be collected from other geographers will be adduced, in order to elucidate the narrative, which is the first genuine account of Arabia that is extant. Neither is it unworthy of notice, that the Periplûs itself is constructed upon the plan of Agathárchides; it goes down the western coast of the gulph in the same manner, then returns back to Muos Hormus, and crosses over to the eastern side, and pursues that line to its conclusion; the difference between the two consists in the difference of knowledge in the respective ages. Agathárchides describes the trade as it stood in the age of Philomêtor. The Periplûs carries it to the extent it had obtained under the protection of the Roman emperors; but both set out from the same point for both voyages, and it is only the extension of the line which constitutes the distinction.

But it is our immediate business to proceed to the country of the Sabêans, called Arabia the Happy, from its wealth, its commerce, and its produce, either native or imputed. This province answers generally to the modern Yemen [70], and the Sabêans of our author's age possessed the key to the Indian commerce, and stood as the intermediate agents between Egypt and the East. This is a most valuable fact, which we obtain

[70] Yemen and Sabea express identically the same thing; for both signify the *south*, and this province is in the south of Arabia. The queen of Sheba is the queen of the South, or Sabea, written Seba or Sheba in Scripture; and Yemen, which signifies the *right hand* in Arabic, is equivalent; for in their view the *right hand* is the south, and the *left hand* the north; which is locally true, in regard to every nation which contemplated the rising sun as the first object of admiration or adoration.

from this work, and clouded as it may be with much that is dark and marvellous, the truth appears upon the whole incontestably. Certain it is that the wealth assigned to this nation is a proof of the existence of a commerce, which has enriched all who have stood in this situation, and equally certain is it that the information of the author ceases at the succeeding step.

Sabêa, says Agathárchides, abounds with every production to make life happy in the extreme, its very air is so perfumed with odours, that the natives are obliged to mitigate the fragrance by scents that have an opposite tendency, as if nature could not support even pleasure in the extreme. Myrrh, frankincense, balsam, cinnamon, and casia are here produced from trees of extraordinary magnitude. The king, as he is on the one hand entitled to supreme honour, on the other is obliged to submit to confinement in his palace; but the people are robust [71], warlike, and able mariners; they sail in very large vessels to the country where the odoriferous commodities are produced, they plant [72] colonies there, and import from thence the larimna [73], an odour no where else to be found; in fact there is no nation upon earth so wealthy as the Gerrhêans and Sabêans, from their situation in the centre of all the commerce which passes [74] between

[71] So Bruce, vol. i. p. 408. quotes Isaiah, xlv. 14. *The merchandise of Ethiopia and of the Sabéans, men of stature,* as curious, for according with this passage, in our author, as with the testimony of their mercantile pre-eminence, סְבָאִים Sebaim;—the term for Ethiopia, in this passage, is Cush, which means some tribe of Arabia, and not the Ethiopians of Africa.

[72] The Arabians planted colonies, or established powerful companies and factories in every country where they traded, till the Europeans reached India round the Cape. This may be proved from history in regard to Africa, Malabar, and Ceylon, and is in some measure true to this day.

[73] Strabo makes Larimnus an odour, ἐυωδέστατον θυμίαμα. xvi. 778.

[74] The fragment of Agathárchides preserves a most valuable record in Photius, which is lost in Diodôrus and Strabo. Strabo ends with the riches of Sabêa, and does not go to the White Sea, and the particulars of the sun mentioned by Diodôrus and Photius. In the former part Diodôrus is more expansive and intelligible than Photius.

Asia and Europe. These are the nations which have enriched the Syria[75] of Ptolemy; these are the nations that furnish the most profitable agencies to the industry of the Phênicians, and a variety of advantages which are incalculable. They possess themselves every profusion of luxury, in articles of plate and sculpture, in furniture of beds, tripods, and other household embellishments, far superior in degree to any thing that is seen in Europe. Their expence of living rivals the magnificence of princes[76]. Their houses are decorated with pillars glistening with gold and silver. Their doors are crowned with vases and beset with jewels; the interior of their houses corresponds to the beauty of their outward appearance, and all the riches of other countries are here exhibited in a variety of profusion[77]. Such a nation, and so abounding in superfluity, owes its independence to its distance from Europe; for their luxurious manners would soon render them a prey to the sovereigns in their vicinity, who have always troops on foot prepared for any con-

[75] See Harris, i. 419. Josephus, lib. viii. c. 2. where mention is made by Harris of Ptolemy's building Philadelphia on the site of Rahab of the Ammonites, which might have some relation to Syria. Palestine likewise is included in Syria by Heródotus and the early writers, and all the country from the Euphrates to Pelusium. Some districts of Arabia also; for Elath is reckoned as part of Syria, 2 Kings, xvi. 6.; and therefore if Ptolemy was master of Elath, this is the trade of Ophir revived again under the dynasty of the Lagidæ. In this sense, the cities of Syria, Damascus, Gaza, Tyre, and Sidon, obtained the principal benefit of this commerce, next to Alexandria. See Bochart Phaleg. 685. See also Aristeas Histor. o interpret. p. 40. Ed. Oxon.

[76] Strabo from Eratósthenes and Artemidôrus, confirms all this splendour, and almost repeats the words of Agathárchides, lib. xvi. p. 778.

[77] Harris, or Dr. Campbell, after talking magnificently of the commerce of the Ptolemies with India, at last confesses, vol. i. p. 432. that the discovery of Hippalus is the first certain date of a visit to that country. It is manifest from the whole of this account before us, that the Sabêans did go to India, and that the subjects of Ptolemy did not. It is this monopoly that made the riches of Arabia proverbial.—Icci beatis nunc Arabum invides gazis. Hor. Ode 29. lib. i. where my excellent friend and patron, the archbishop of York, reads, beatus nunc, which gives a beautiful turn to the whole Ode.

quest, and who, if they could find the means of invasion, would soon reduce the Sabêans to the condition of their agents and factors, whereas they are now obliged to deal with them as principals.

From this narrative, reported almost in the words of the author, a variety of considerations arise, all worthy of attention. It is, as far as I can discover, the first contemporary account of the commerce opened between Egypt and India, by the medium of Arabia; it proves that in the reign of Ptolemy Philomêtor, in the year 177, A. C. and 146 years after the death of Alexander, the Greek sovereigns in Egypt had not yet traded directly to India, but imported the commodities of India from Saba the capital of Yemen; that the port of Berenikè was not used for this commerce, but that Muos Hormus, or Arsínoè, was still the emporium. It proves that there was no trade down the coast of Africa (an intercourse afterwards of great importance) except for elephants, and *that* no lower than Ptolemáis Thêrôn. It shews that the voyage down the Arabian coast of the Red Sea was still very obscure, and above all it demonstrates incontestably by the wealth constantly attendant on all who have monopolised the Indian commerce, that the monopoly in the author's age was in Sabêa. The Sabêans of Yemen are compared with the Gerrhêans on the Gulph of Persia; and both appear connected with the Phênicians by means of Petra and the Elanitick Gulph; and with the Greeks in Egypt, by Arsínoè and Muos Hormus.

I am not ignorant that the establishment of a trade with India is attributed to Ptolemy Philadelphus[78], that the immense re-

[78] See Harris's Voyages, vol. i. book i. c. 2. compared with p. 421. This work is quoted as Harris's, but this part of it, in the second edition here referred to, is by Dr. Campbell;

venue and wealth of Egypt is imputed to this cause, and that a number of Indian captives are mentioned by Athenêus, as composing one part of the spectacle and procession, with which he entertained the citizens of Alexandria. But this last evidence, which is deemed conclusive, admits of an easy solution; for Indian was a word of almost as extensive signification in that age, as the present; it comprehended the Cafrès of Africa, as well as the handsome Asiatick blacks, and the commerce with Arabia was long called the Indian trade, before the Greeks of Egypt found their way to India. But if real Indians were a part of the procession, they were obtained in Sabêa. The Arabians dealt in slaves, and the Greeks might find Indian slaves in their market as well as any other. Huet, Robertson, and Harris are all very desirous of finding a trade with India under the Ptolemies; but the two latter, as they approach the real age, when this commerce took place, upon the discovery of Hippalus, fully acknowledge, that all proofs of a more early existence of it are wanting; no contemporary author asserts it: and the testimony of Agathárchides, whether we place him in 177, or with Dodwell, in 104, A. C. affords perfect evidence to the contrary. The internal evidence of the work itself carries all the appearance of genuine truth, and copied as it is by Strabo and Diodôrus it obtains additional authority[79]. They have both added particulars, but none which prove a direct communication with India in their own age. They both ter-

and is executed most ably. I am obliged to him for many references to authors, which I have it not in my power always to acknowledge.

[79] The authority of Agathárchides is so often joined with that of Eratósthenes by Strabo, that it is highly probable it contains all that Eratósthenes knew, with the addition of his own information. See Strabo, lib. xvi. p. 778. τἆλλα δὲ, τὰ μὲν παραπλησίως τῷ Ἐρατοσθένει λέγει, τὰ δὲ καὶ παρὰ τῶν ἄλλων Ἱστορικῶν παρατίθησιν.

minate their information at Sabêa, where he does, and both suppress one circumstance of his work which Photius has preserved, that ships from India were met with in the ports of Sabêa. Whatever knowledge of India, or Indian trade, they have beyond this, is such only as they derived from the Macedonians, and is totally distinct from the communication between Egypt and that country.

In regard to the influx of wealth into Egypt, it would be equally the same, whether the Greeks imported Indian commodities from Arabia or from India direct. For as the Sabêans were possessed of the monopoly between India and Egypt, so Egypt would enjoy the same monopoly between Sabêa and Europe.

The consumers, indeed, must bear the burden of this double monopoly, but the intermediate agents in both instances would be gainers, and the profits, while the trade was a monopoly, would be, as they always have been, enormous. The sovereigns of Egypt were well apprized of this, and so jealous were they of this prerogative of their capital, that no goods could pass through Alexandria either to India or Europe, without the intervening agency of an Alexandrian factor.

In the description which Agathárchides gives of Sabêa there is nothing inconsistent with probability; neither is this the boundary of his knowledge towards the east, for he mentions several other particulars which I had censured too rashly as fabulous in my former edition, but which I have since learnt from better information to acknowledge as truths; and from which, besides doing justice to the author, I can deduce some inferences of importance. The first is the singular appearance

of the sea beyond the limits of Sabêa, which he describes as *white as a river*. This is perfectly correct, if we form to ourselves the idea of a turbid stream bringing down a white or chalky substance from the soil through which it passes; for the sea between Socotra and Hadramaut [80] assumes this appearance, as we learn from the testimony of Terry, Corsali, and a variety of modern [81] navigators [82]. But it is not sufficient to do justice to the veracity of the author; for we may collect from this, that the ships from Egypt did actually pass the straits, and visit the ports on the ocean, such as Aden or Kaneh, or even some more remote: for to verify this fact, they must reasonably be supposed to have seen the phênómenon. Here then we may conclude that the merchants saw those large [83] ships which the author notices as coming from the Indus, Patala, Persis, and Karmánia, perfectly in correspondence with the commerce of the age.

Other circumstances recorded in the same work are, that in that climate there is no twilight, which I originally acknowledged to be an illustrious truth; and that the sun rises not like a disk, but a column, casting no shadow till it is an hour above the horizon. This was a fact of which I expressed a doubt;

[80] "Between Socotra and Arabia you have "white water twenty leagues off shore." Dalrymple's Collection, p. 57.

[81] The sea near Socotra is as white as milk. Terry's Voyage in Purchas, vol. iii. p. 1467.

[82] Vicino al India trecente miglia l'acque del mare si mostran come di latte, che mi pare esser causato dal fondo, per esservi l'arena bianca, Andrea Corsali. Ramusio, tom i. p. 178.

[83] The ships which carried the trade between Guzerat and Arabia, in the 16th and 17th century, were of vast bulk. Captain Saris measured those he detained in the Red Sea; the largest was 153 feet from stem to stern, breadth 42, height 31, burden 1200 tons; the main-mast 108 feet high, the main-yard 132. The English ships of that age (1611) were 300 or 350 tons at most. Purchas, i. 349, 350.

but I have since learnt that Captain James, in his voyage to Hudson's Bay, asserts that the sun rises there with a pillar over his head. This indeed is in a high northern latitude, not comparable perhaps with a phênómenon on the coast of Arabia: but that the sun casts no shadow at his first appearance is confirmed by Cadamosto [84], who says, that though the sun is visible, he affords no light for the first half hour, and seems as if he were eclipsed at his first rising. I should have been glad to find a confirmation of this in any modern navigator, but my research has not been attended with success. Possibly it is a circumstance well known to astronomers, and accounted for by laws of refraction, with which I am unacquainted. A more extraordinary effect is added, that the evening twilight lasts three hours after sunset. Of this I should be happy to receive a solution; for though it is not consonant to reason or experience, it probably depends upon some deception which those who are acquainted with those regions may explain.

It is a pleasure to have obtained a better knowledge of these particulars myself, and a satisfaction to do justice to an author whose fidelity I had questioned. The marvellous in classical writers is daily diminishing, as we acquire a more intimate knowledge of the east; and as our information increases, there may remain little that is fabulous, or where the fable may not be traced in its origin to a connexion with truth.

If it should now be inquired how the commerce with India could be in this state so late as the reign of Ptolemy Philometor, or why the discoveries of Nearchus had not in all this time been

[84] Verum licet sol videatur non tamen illuminat ad spatium mediæ horæ, videtur autem pati deliquium in ortu. Cadamosto apud Grynæum, p. 59.

prosecuted? the answer is not difficult. The fleets from Egypt found the commodities of India in Arabia, and the merchants contented themselves with buying in that market, without entering upon new adventures to an unknown coast. There is every reason to suppose that Sabêa had been the centre of this commerce long prior to the discoveries of Nearchus, and the age of Alexander; and it is highly probable that the Arabians had even previous[85] to that period ventured across the ocean with the monsoon. That they reached India is certain, for Indian commodities found their way into Egypt, and there is no conveyance of them so obvious as by means of Arabia and the Red Sea. The track of Arabian navigators is undoubtedly marked along the coast of Gadrosia, before Nearchus ventured to explore it, for the names he found there are many of them Arabick; and if conjecture in such a case be allowable, I should suppose that they kept along the coast of Gadrôsia to Guadel or Possem, and then stood out to sea for the coast of Guzerat or Malabar. My reason for supposing this is, that Nearchus found a pilot at Possem, which implies previous navigation, and adds, that from that cape to the Gulph of Persia the coast was not so obscure as from the Indus to the cape.

But if Nearchus reported this, or if the commentaries in the Alexandrian library contained any correspondent information, how could Agathárchidēs be ignorant of the navigation beyond Sabêa? He was not ignorant of Nearchus's expedition, for he

[85] Harris, i. e. Dr. Campbell, Bruce, and Robertson all subscribe to this opinion, and from this fact a strong degree of probability attaches to the account of Plókamus's freed man, for if he was carried to Ceylon by accident, he would readily find the means of returning by an Arabian vessel, he would likewise learn the nature of the monsoon. See Bruce, vol. i. 369.

mentions the Icthuóphagi of Gadrôsia, with many circumstances evidently derived from Nearchus, and others added, partly fabulous perhaps, and partly true, from various sources of intelligence, such as the histories, journals, or commentaries in the library.

He mentions expressly the manner of catching fish, as described by Nearchus, within nets extended along the shoals upon the coast [86], and the habitations of the natives formed from the bones of the whale. He notices the ignorance and brutal manners of the natives, their dress, habits, and modes of life; and one circumstance he records, which he could not have extracted from Nearchus, which is that beyond the straits which separate Arabia from the opposite coast, (meaning, perhaps, the entrance to the Gulph of Persia,) there are an infinite number of scattered islands very small and very low, and extended along the sea which washes India and Gadrôsia [87], where the natives have no other means of supporting life but by the turtles which are found there in great abundance and of a prodigious size. I have thought it necessary not to omit this circumstance, because it appears to me as the first notice, however obscure, of the Maldives or Lackdives [88], called the islands of Limúrikè in the Periplûs, and distinguished particularly as producing the finest tortoise-shell in the world. The mention of them by

[86] He uses the very word, ῥαχίας, so often commented on in the journal of Nearchus.

[87] The mention of Gadrosia naturally induces obscurity and doubt, but the *infinite number* of these islands can hardly apply to any but the Lackdives or Maldives. The turtle also and tortoise-shell is characteristick.

[88] Χρυσιονητιωτικὴ is by Salmasius, p. 997. supposed to relate to the Khrusè of Ptolemy, i. e. Malacca, the Golden Chersonese. But it is coupled with the islands of Limûrikè. Σιλώνη, ἥτε χρυσιονητικὴ καὶ ἡ περὶ τὰς νήσους θηρευομένη, τὰς προκειμένας αὐτῆς τῆς Λιμυρικῆς. Perip. p. 32.

Agathárchides appears to be the earliest intimation of their existence. In that sense the fact is curious, and connected with the object in view at present, which is to collect the information of contemporary writers, before we proceed to the particulars of the navigation.

Some extravagances or improbabilities which contaminate several parts of this account in Agathárchides, have been disregarded by design; where knowledge ends fable commences, and much lenity of judgment is due to all writers who speak of distant countries for the first time, or by report. This author does not distinctly mark his Icthuóphagi. They are not merely those of Gadrôsia, but others also apparently on the coast of Arabia or Africa [89]. Regions, it is true, where fish rather than bread has ever been the staff of life, and where it continues so at the present hour. Let any reader advert to the manner in which he speaks of the passage out of the Red Sea into the ocean, and he cannot fail to observe, that by giving the African coast an easterly direction, without notice of its falling down to the south, the commerce of that day had not yet passed cape Guardafui. Single ships [90], or a few in company, might have doubled that promontory and stood to the south, and others of the same description might even have reached India. Some obscure accounts from these were possibly conveyed to Alex-

[89] As are the Icthuóphagi of Heródotus, lib. iii. p. 203. ed. Wessel.

[90] It is everywhere apparent, that Ptolemy Philadelphus was more ardent in discovery than his successors. The Greeks who had been in Abyssinia, as recorded by Pliny, vi. 35. were all possibly sent by him, as Dálion, Aristócreon, Bion, Básilis, and Simónides; and Timósthenes his admiral had certainly gone down the coast of Africa; for to him Pliny attributes the first mention of Cernè or Madagascar. But what is here asserted is meant only to say, that no trade on that coast existed in consequence of this discovery, as late as Agathárchides; and even in the age of the Periplûs the trade reaches no farther than Rhaptum and Menuthias, or Zanguebar, in south lat. 6° 0′ 0″. whereas the north point of Madagascar is in lat. 12° 0′ 0″. Ptolemy also only goes to Prasum, lat. 15° 0′ 0″.

andria, and from that source might have been recorded by Agathárchides, but these are all very different from his description of Sabêa, and comparatively vague or obscure. Of the trade to Sabêa he speaks distinctly, as a regular established commerce; so far his knowledge was genuine, beyond that it is precarious. This is an opinion collected from a full consideration of the work itself, and I would rather wish to diminish the number of his errors, than impute those to him which are not his due.

It has been thought of importance to detail these particulars from Agathárchides, because he is the genuine source from which Diodôrus, Strabo, Pliny[91], Pompônius Mela, and others have derived their information. Diodôrus lived in the beginning of the reign of Augustus. He has copied the whole of Agathárchides, so far as relates to the Icthuóphagi, Trôglodytes, Ethiopians, and Arabians, in his third book. Strabo, who lived to the end of Augustus's reign[92], has followed Agathár-

[91] Pliny rather accords with Agathárchides than copies him; he seems to have gone to the source;—those Greeks I mean who entered Ethiopia in the age of Philadelphus. See lib. vi. 35.

[92] The Romans do not appear a commercial people, because their great officers and their historians are too much attached to war, and the acquisition of power, to notice it. All, therefore, that we hear of commerce is obliquely, but the wealth of merchants was proverbial. (See Horace, lib. iii. od. 6. l. 30. See Cicero, who says, in contempt indeed, is such a man who was a merchant and neighbour of Scipio, greater than Scipio, because he is richer?) Neque me divitiæ movent quibus omnes Africanos et Lælios multi venalicii arii [mangones] mercatoresque superârunt. Cicero, in Corneliana, ut citatus ad Ammianum, p. 306. Paris ed. 1681. But attend only to the merchants who followed the armies, who fixed in the provinces subdued or allied, the Italici generis homines, who were agents, traders, and monopolists, such as Jugurtha took in Zama, or the 100,000 that Mithridâtes slaughtered in Asia Minor, or the merchants killed at Genabum [Orleans], Cæsar Bell. Gall. and you see the spirit of adventure, and the extent of commerce at a single glance. (See also the Letters of Cicero, while proconsul of Cilicia.) Dr. Campbell, in his Political Survey, has proved their conduct on this matter in regard to Britain, and the present work will give a most extraordinary specimen of it in Egypt.

chides, but sometimes with the additions of Artemidôrus, in his sixteenth book; he has contributed little to our knowledge of Arabia, but what is contained in the expedition of Elius Gallus. He extends, indeed, the navigation down the coast of Africa with Artemidôrus; but on the east, he stops at Sabêa with his author. On the coast of Gadrôsia he has followed Nearchus more faithfully than Agathárchides, but has no mention of the Lackdive Islands; and the little he says of Taprôbana, is a proof that it was known by report, but not yet visited. Pliny and Pompônius Mela in many detached parts tread the same ground, and copy the same author.

But if Agathárchides lived under Ptolemy Philomêtor, it is natural to ask, had nothing been done during 170 years, towards further discovery by the fleets that sailed annually from Egypt? The answer is, that whatever was done is not recorded; the course of discovery was doubtless in progression; but there is a great difference between effecting the discovery, and bringing it into general knowledge, or making it a part of history. It is possible, also, that the sovereigns of Egypt were more jealous of the trade than ambitious of the honour; and the later princes were more likely to cramp commerce by extortion, than to favour it by protection. The Phênicians had manifestly a share in the profits from its commencement, and it was not unlikely that the Romans might have felt this as an additional incentive for the subjugation of Egypt, if they had been fully informed of the means it afforded for adding to the wealth and aggrandisement of the republic.

It is not meant, therefore, to deny the extension of the voyages progressively, either to the east or the south; for as long as there was any vigour in the government of Alexandria,

the trade on the Red Sea was a favoured object. We learn from Strabo and Diodôrus, a circumstance not mentioned in Agathárchides, and probably later than his age, that the Nabathêans at the head of the gulph had molested the fleet from Egypt by their piracies, and had been suppressed by a naval force fitted out for that purpose. This, at the same time it proves the attention of the Egyptian government to this trade, proves likewise that the fleets still crossed the gulph from Muos Hormus or Berenikè, and did not strike down at once to Moosa or Okêlis, as they did in the age of the Periplûs.

This mark of attention also adds highly to the probability, that some progress had been made to the south, down the coast of Africa; for there, from the first mention of it, there seems always to have been a mart for Indian commodities; and the port of Mosyllon, as appears afterwards by the Periplûs, was a rival to Sabêa or Hadramaut. Mosyllon was under the power of the Arabian king of Maphartis, in the same manner as the Portuguese found that nation masters of the coast of Africa, fifteen centuries later, and the convenience of these possessions to the Arabs is self-evident; for as vessels coming with the monsoon, for the Gulph of Persia make Maskat, so those bound for Hadramaut or Aden run down their longitude to the coast of Africa; here, therefore, from the earliest period that the monsoons were known to the Arabians, perhaps much prior to Alexander, there would be marts for Indian commodities; and here it is highly probable the fleets from Egypt found them, when the Sabêans were too high in their demands.

That this commerce had taken place soon after the time of Agathárchides may be collected from Strabo, who cites Artemidôrus to prove that there was a trade on the coast of Africa

as low as the Southern Horn. He mentions, indeed, that at the straits[93] of the Red Sea the cargo was transferred from ships to boats or rafts, which, though it manifests that the navigation was only at its commencement, still proves its existence. He does not name Mosyllon, but the Periplûs, by noticing that several articles were called Mosyllitick, demonstrates, that a commerce had been carried on at that port previous to its own age, and that Indian commodities were sought on that coast before they were brought immediately from India. If there were such a mart, this must be a necessary event, for in the first instance the trade of Sabêa was a monopoly, and if the sovereigns of Aden or Maphartis had opened the commerce, either in their own country or Africa, it would draw a resort thither as soon as the port could be known, or the voyage to it be effected. The date of this transaction it is impossible to ascertain, but a variety of circumstances concur to shew that it had taken place previous to the discovery of the monsoon by Hippalus.

HIPPALUS.

VIII. The discovery of Hippalus opens a scene entirely new to our contemplation; and if it has appeared that hitherto there are only two sources of information, the Macedonians and Agathárchides; if it has been shewn that all the authors between Agathárchides and the discovery, speak the same language; it will now be still more evident, that a new êra commences at this point, and that the Periplûs, Pliny, and Ptolemy are as

[93] See Bay Avalítès, *infra*.

uniform in one system as their predecessors were in another, previous to the discovery.

Dodwell has observed, with his usual acuteness, that it is no proof that the Periplûs is contemporary with the age of Pliny, because he mentions the same sovereigns, in the different countries of which it treats; for he adds, Ptolemy notices the very same, Kepróbotas in Limúrikè and Pandíon in Malabar. He supposes, therefore, that the Periplûs copied Pliny or Pliny's authorities, and that the same princes might be reigning from the time of Vespasian to the reign of Adrian. But would not this correspondence of the three be equally consistent, if we suppose them all to have but one source of information? Dodwell would subscribe to this in regard to Pliny and Ptolemy, whose age is known, but he refuses this solution to that of the Periplûs, the date of which he chooses to bring down as low as Verus. Of this more in its proper place.

The truth is, that there are no data for fixing the discovery of Híppalus with precision. It is certainly subsequent to Strabo whose death is placed [94], anno 25. P. C. for Strabo who was in Egypt with Elius Gallus must have heard of it, and to all appearance it must have been later than the accident, which happened to the freedman of Annius Plókamus, who, while he was collecting the tribute on the coast of Arabia, was caught by the monsoon and carried over to the island of Ceylon. This happened in the reign of Claudius, under whom Plókamus was farmer of the revenue in the Red Sea. The reign of Claudius commences in the year 41 of our êra, and ends in

[94] Blair's Chronology says twenty-five years, A. C. which is impossible, for Augustus subdued Egypt, anno 30, A. C. and Strabo must have been in Egypt with Gallus in twenty-seven, or twenty-six, A. C. He could not write his work between that and twenty-five.

54. Let us assume the middle of his reign, or the year 47, for this transaction, and as Pliny dedicates his work to Titus the son of Vespasian, if we take the middle of Vespasian's reign it coincides with the year 73 [95]. This reduces the space for inquiry within the limits of twenty-six years. From these we may detract the first years of Vespasian, which were too turbulent for attention to commerce, with the two years of Galba, Otho, and Vitellius; Nero reigned fourteen, and in the early part of his reign, or the six last of Claudius, the date might be fixed with the greatest probability, because, if we suppose the return of the freedman of Plókamus, the embassy that accompanied him, or the knowledge he acquired to be a cause, or in any degree connected with the discovery, this space confined to about ten years is the most consistent of all others, to allot to this purpose [96]. Another fact connected with this is, the profusion of Nero in cinnamon and aromaticks, at the funeral of Poppêa [97]. An extravagance, wanton as it is, which bespeaks something like a direct importation of the material. And we are likewise informed by Pliny, that he sent two centurions from Egypt up into Ethiopia to obtain a knowledge of the interior; an inquiry naturally attached to the discoveries on the coast.

[95] Salmasius says, 77. 830 anno urbis conditæ, p. 1186.

[96] Harris fixes Hippalus's discovery in the reign of Claudius, vol. i. 431.

[97] See Pliny, lib. xii. c. 18. the passage itself is obscure, it proves that Pliny knew, (what was not known in the prior age,) that cinnamon and casia were not the native produce of Arabia. But it does not fully prove that the merchants imported them from more distant marts.

Non sunt eorum cinnamomum et casia. Ibid.

The balance against Rome for the produce of India, Sêrica, and Arabia, millies centema millia sestertium, 800,000*l.* Ibid. Tanto nobis deliciæ et fœminæ constant—quota enim portio ex illis ad Deos . . . . . pertinet?

Periti rerum asseverant non ferre tantum [cinnamomi et casiæ] quantum Nero Princeps novissimo Poppææ suæ die concremaverit. Plin. xii. 18.

The usual date attributed to the discovery of Hippalus is the reign of Claudius. Dodwell and Harris are both of this opinion, and the latter, or rather Dr. Campbell his editor, has treated this subject so ably, that if it were not necessary for the illustration of the work before us, it would have been sufficient to refer to his inquiries, rather than to tread the ground again which he has occupied. Let us assume then the seventh year of Claudius [98], answering to the forty-seventh of the Christian êra, for the discovery of Hippalus, and the next object of inquiry will naturally be the date of the work which we are to examine.

AGE OF THE AUTHOR OF THE PERIPLUS.

IX. The learned Dodwell and Salmasius affix two very different dates to the Periplûs, and between two such able disputants it is easier to chuse than decide. My own observations lead me to prefer the opinion of Salmasius, but not so peremptorily as to suppose the question cleared of all its difficulties, and there is a hint dropt by Dodwell, that I should wish to adopt, if I were not covinced that the author of the Periplûs speaks of Hippalus as a distinct person.

Dodwell supposes that the work was compiled by some Alexandrian [99] from the journal of Hippalus; and so far it is just to allow, that the parallel information in Pliny and the Periplûs

[98] Dodwell says, in primis annis Claudii, and supposes that Pliny takes his account of Hippalus from a work which Claudius himself wrote; certain it is, that the memory of Claudius was revered by the Alexandrians, and not improbably by reason of this discovery and the prosecution of it.

[99] Certe Hippali personæ conveniunt examussim hujus itinerarii notæ. Nomen ipsum illum Alexandrinum fuisse prodit, nec Romanum scilicet, nec Ægyptium, sed planè Græcum, qualia erant colonorum Macedonum Alexandrinorum. Dissert. p. 102.

does not appear so properly to be copied by either from the other, as from some authority common to both. But that the author, whatever he copied, was a navigator or a merchant himself, cannot be denied, when we find him speaking in the first person upon some occasions, and when we read his account of the tides in the gulph of Cambay, which is too graphical to come from any pen but that of an eye-witness.

This author and Pliny agree in the description of Hadramaut [100] and Sabbatha, in the names of the kings and of the ports on the coast of Malabar, as Muzíris and Cottonára, and of the Sinthus; in the departure of the fleets from Okêlis and Kanè, and a variety of other circumstances; but their most remarkable correspondence is in their history of the Spikenard and Costus [101]; both mention the Ganges and Ozênè as the marts for the former, and the Pattalênè for the latter. The intelligence is undoubtedly the same in both, and yet there is no absolute proof that either copied from the other. But those who are acquainted with Pliny's method of abbreviation would much rather conclude, if one must be a copyist, that his title to this office is the clearest. Wherever we can trace him to the authorities he follows, we find that narratives are contracted into

[100] Ὑπέρκειται δὲ αὐτῆς μεσόγειος ἡ Μητρόπολις Σάβαθα ἐν ᾗ καὶ ὁ βασιλεὺς κατοικεῖ, πᾶς δ' ὁ γεννώμενος ἐν τῇ χώρᾳ λίβανος εἰς αὐτὴν ὥσπερ ἐνδοχεῖον εἰσάγεται καμήλοις τε καὶ χεδίαις ἐντοπίαις δεξματίναις ἐξ Ἀσκῶν καὶ πλοίοις. Perip. p. 15.

Tus collectum Sabota camelis convehitur portâ ad id unâ patente, digredi viâ capital. Plin. Salmas. 492.

[101] Pliny, lib. xii. c. 12. Ed. Hard. De folio Nardi plura dici par est ut principale in Unguentis.... alterum ejus genus apud Gangem nascens; damnatur in totum, Ozænitidis nomine, arus redolens.—The first is the Gangitika of the Periplûs, written also Gapanika. The latter is from the Ozênè of the Periplûs; which Harduin is so far from understanding, that he writes Ozænitidis ab Ὄζαινα, quod odore fœdo nares feriat. The Costus Pliny mentions as obtained at Pátala. Primo statim introitu amnis Indi in Patale Insula, where the Periplûs also finds it. See Perip. p. 28. 36. compared with p. 32. If these passages of the Periplûs had stood contiguous, as they do in Pliny, the proof would have been complete; scattered as they are, it is nearly so.

a single sentence, and descriptions into an epithet. This appears to me fully ascertained in the present instance, but conclusions of this sort are not hastily to be adopted.

Pliny perished in the eruption of Vesuvius the same year that Vespasian died, which is the seventy-ninth of our êra; and if we place the discovery of Hippalus in forty-seven, a space of thirty years is sufficient for the circumstances of the voyage, and the trade to be known in Egypt; from whence to Rome the propagation of intelligence is more natural than the reverse. But if we should be disposed, with Dodwell, to carry the date of the Periplûs down to the reign of Marcus and Lucius Verus [102], that commenced in 161; and at the distance of almost a century, its correspondence with Pliny is by no means equally consistent.

The strength of Dodwell's argument lies in the report of the Periplûs, cocerning the destruction of Arabia Felix, or Aden [103], by the Romans; and the mention of the coast of Africa being subject to the sovereign of Maphartis, king of the *first* [104] Arabia. The title of *first* or *second* annexed to a province, is a division which certainly seems of later date under the emperors, than any period that would suit the system of Salmasius; but there is reason to suspect the text, or the rendering of it; and

[102] The passage in the Periplûs runs thus: Χαριβαὴλ .... συνεχέσι πρεσβείαις καὶ δώροις φίλος τῶν αὐτοκρατόρων· p. 13, that is, Charibáel king of Saphar, is upon friendly terms with the Roman emperors, and receives presents and embassies from them. The word *emperors*, in the plural, induces Dodwell to carry down the date till he meets with two joint emperors reigning together. That a plural does not require this we may learn from Dionysius Perieg. who says of Rome, ἐμῶν μέγαν δικον ἀνάκτων, whence Barthius draws a similar conclusion, that Dionysius lived under the Antonines; but Pliny writes, Dionysium, quem in orientem præmisit Divus Augustus, lib. vi. 27. a clear proof that Dionysius lived under Augustus. This argument is from Vossius, Præf. ad Dionys. Perieg.

[103] Page 15.

[104] Page 10.

no authority which appears sufficient to prove that the territory of Maphartis ever was a Roman province in any age; or even if it might be so called, as being tributary, no reason can be given why it should be distinguished as the *first*.

In regard to the destruction of Aden by Cesar, the author of the Periplûs says [105], it happened not long before his time. But what Cesar this should be is a great difficulty. Dodwell, who supposes that it must be by some Cesar who destroyed it in person, can find no emperor to whom it can be attributed prior to Trajan. But Trajan never was on the southern coast of Arabia; he entered the country from the Gulph of Persia, but never penetrated to the southern coast by land, and never approached it from the Gulph of Arabia. It is much more just, therefore, to conclude that Aden [106] was destroyed by the command of Cesar, than by Cesar in person; and if so, any Cesar [107] whose age will coincide with other circumstances may be assumed. Many probabilities conspire to make us conclude tnat this was Claudius.

The Romans, from the time they first entered Arabia under Elius Gallus, had always maintained a footing on the coast of the Red Sea. They had a garrison at Leuké Komé in Nabathêa [108], where they collected the customs, and it is apparent that they extended their powers down the gulph, and to the

[105] Page 15.

[106] The proof that Aden is the Arabia Felix of the Periplûs, rests upon the interpretation of Aden rendered deliciæ by Huet, and is of the same family as Eden. The situation likewise corresponds. It is an unusual form for a name of a town: but is confirmed by Pomp. Mela, lib. iii. c. 8. Canæ, Arabia et Gandamus.

[107] Gallus oppida diruit is cited by Hudson from Pliny, but has no reference to this city, Aden; for the sentence is, Gallus oppida diruit non nominata ab autoribus qui ante scripserunt: and he then names them Egra [Negra], Annestus, Esca [Asca], Magusus, Tammacus, Lacbecia, Mariaba, Caripeta. Plin. lib. vi. c. 28. Hardouin, 32. Gallus never was on the sea-coast below Hejaz.

[108] A port north of Jidda and Yambo.

ports of the ocean, in the reign of Claudius, as the freedman of Annius Plókamus was in the act of collecting the tribute there, when he was carried out to sea. If we add to this the discovery of Híppalus in the same reign, we find a better reason for the destruction of Aden at this time, than at any other. Aden had been one of the great marts for the Indian commerce, and if Claudius, or the prefect of Egypt, was now disposed to appropriate this trade to the Romans, this was a sufficient cause for ruining Aden, in order to suppress rivals or interlopers. The jealousy or opposition of Aden to the new discovery would naturally afford ground for quarrel, and if not, the Romans knew how to provoke one whenever it suited their interest.

These considerations are offered as a probable answer to the weightiest of Dodwell's arguments; his long and tedious disquisition concerning Palesimoondus, will defeat itself. It stands thus: having determined that the age of the Periplûs must be that of Marcus and Lucius Verus, he is obliged to suppose, that the author could not have seen the work of Ptolemy, who lived in the reign of Adrian. Now the reasons for establishing the priority of the Periplûs are these; first in going down the coast of Africa, the extent of discovery is Rhaptum, in latitude 9° 0′ 0″ south; but in Ptolemy a farther progress is made to Prasum, in latitude 15° 0′ 0″ south. This naturally appears a proof that Ptolemy is the later writer. But a stronger follows; the Periplûs styles Ceylon, Palesimoondus, and adds, "it is the "same island as the ancients called Tapróbana [109]." But in the time of Ptolemy it had acquired a third name, Sálikè, and he accordingly writes, "Sálikè, which was formerly named Pale-

[109] Page 35.

" simoondus." It follows then, that the author who writes Palesimoondus must be prior to the author who writes Sálicè. Dodwell, in order to obviate this self-evident truth, in the full spirit of system, is necessitated to argue, that the author of the Periplûs, though an Alexandrian, had never seen the work of Ptolemy, who was of Alexandria also; but that he copies Pliny, who was a Roman; and then to support this strange hypothesis, he is compelled to maintain, that the Palesimoondus of Pliny is not Ceylon, or the Tapróbana of the ancients, but the Hippokoora of Ptolemy in Aríakè or Concan. How these assertions could be deemed authentic by any one, when Dodwell wrote, is incomprehensible, unless we calculate the dignity which attaches to erudition. But we now know that Sálikè is derived from Sala-bha[110], the Sanskreet name of Ceylon, and Palêsimoondus, from Parashri-mandala, the country of Parashri[111], or the Indian Bacchus. Both are native names, and voyagers at different times acquired both from the natives. When the island comes under consideration in the course of the narrative, more will be said on this subject, at present this is ample proof, that the merchants in the age of the author called Ceylon Palêsimoondus, and that in Ptolemy's age it was styled Sálikè; if Ptolemy then allows the former to be first in use, the Periplûs must of necessity be prior to his publication.

Dodwell says[112], that none of Ptolemy's astronomical observations are earlier than the ninth year of Adrian, answering to 123, A. D. If then the first year of Marcus and Lucius Verus is 161, A. D. we add nearly forty years to the antiquity

[110] Paolino, p. 108. Sala is manifestly the root of Sálicè, of Selen-dib, or Seren-dive and Ceylon. See Ceylon, part 2.

[111] Paolino, p. 372. Regi, cultum Liberi Patris. The king, says Pliny, worships Bacchus.

[112] Dissert. p. 89.

of the Periplûs at one step, it could not be later than 123, and how much earlier must be the next object of our inquiry. On this head probability and conjecture must supply the place of proof. The author speaks of the discovery of Híppalus, without specifying its date, or its distance from his own time. Some considerable interval is manifest from his expression, when he says, "from the time of Híppalus to this day some sail "straight from Kanè, &c.[113]," but what space to allot to this interval is by no means evident. From the seventh of Claudius, the assumed epoch of the discovery, to the ninth of Adrian[114], is seventy-eight years, a space in which we may fix the publication of the Periplûs, so as best to suit with other circumstances, and there is one reason to fix it considerably previous to Ptolemy[115], which is this; Ptolemy professes to derive his information from the merchants of Egypt, and the Periplûs seems to be the very work he would have consulted, if he had known it; and yet one circumstance is sufficient to prove, that it never came under his contemplation. His error of extending the coast of Malabar west and east, instead of north and south, is notorious; this he could not have done if he had consulted the Periplûs, for there it is laid down in its proper direction. This induces a belief, that it was not published in, or near the age of Ptolemy, but so much prior as to be neglected, or from its compass and contents not to have obtained much notice at the time of its publication. It is not easy to account for Ptolemy's

[113] Page 32.

[114] Ptolemy, published much later, for he lived till 161 at least, near forty years after the 9th of Adrian.

[115] Salmasius writes, hinc liquet auctorem esse vetustissimum & longe Ptolemæo anteriorem, at the conclusion of his argument on the temple of Augustus, in Limúrikè. Plin. Ex. p. 1186.

disregard of it on any other ground, unless he knowingly slighted it, and preferred the accounts of later voyagers.

But in order to see the state of things suitable to the internal evidence of the Periplûs, we must take a view of the Roman government in Egypt. Egypt became a Roman province in the year thirty before our êra, and from the moment it was subdued, Augustus planned the extension of the Roman power into Arabia and Ethiopia, supposing that Arabia produced spices, and Ethiopia, gold, because these were the articles brought out of those countries into Egypt. The avidity with which this plan was adopted may be conceived by observing that, within ten years after the reduction of Egypt, Gallus had penetrated into the heart of Arabia, and Petronius had advanced eight hundred and seventy miles above Syênè into Ethiopia, and reduced Candákè the queen of that country to the condition of a tributary.

The expedition of Petronius is fixed to a certainty in 21, A. C. because the ambassadors of Candákè found Augustus at Samos, where he was that year; and that of Gallus [116] was contemporary, because his absence with a part of the troops of the province was the inducement for Candákè [117] to insult the government. It must also have been but a very few years after this, that Strabo went up to Syênè with Elius Gallus [118], who was then become prefect. Upon this occasion he observes, that he was informed an hundred and twenty ships now sailed from Muos Hormus annually for India [119], whereas, under the Pto-

[116] Strabo, lib. xvii. p. 819.

[117] Bruce found a Hendaque still a sovereign in Ethiopia; a proof that the name at least is of that country and correct, for Hendaque is precisely Candakè, though not Candacè.

[118] Strabo, lib. ii. p. 118.

[119] The expression is, μέχρι τῆς Ἰνδικῆς, p. 101.

lemies, a very few only had dared to undertake that voyage [120].

The embassies from Pôrus and Pandíon to Augustus, mentioned with so much ostentation by the historians, afford considerable proof of the progress of Roman discovery in the east; and the vessels which conveyed these ambassadors from the coast of Malabar must have landed them either in Arabia, or in the Gulph of Persia, or in the Red Sea; the conveyance also of the freedman of Plôkamus back again from Ceylon to Egypt, proves that the voyage was performed previous to the discovery of Híppalus. Agreeably, therefore, to the assertion in the Periplûs, we ought to suppose that none of these conveyances were effected by means of the monsoon, unless we should allow the vessels to be Indian or Arabian, for both these nations appear visibly to have known the nature of these winds long before the Romans were acquainted with them. From these circumstances we may collect the extreme defire of Augustus to extend his knowledge and his power towards the east, and though the inert reign of Tiberius, or the wild tyranny of Caligula, furnish no documents of a further progress, we may conclude, that the prefects of Egypt were still intent on promoting a discovery once commenced, and with which the emoluments of their own government were so immediately connected. We must suppose, that the Roman fleet was superior in the Red Sea and on the southern coast of Arabia, before any of the powers on that coast could become tributary, and tributary they indubitably were before the reign of Claudius, or Plókamus could not have been farmer of the revenue.

[120] Ὀλίγων παντάπασι. Ibid.

When the freedman of Plókamus returned from Ceylon, if he came in a Roman vessel he must have coasted his whole voyage; but as the king of Ceylon sent four ambassadors with him to Claudius, and a rajah [121] to take charge of the whole, we must conclude that they came in an Indian vessel to Arabia, and that the freedman learned the nature of the monsoon in the course of his navigation; this is so near in point of time, that we cannot be mistaken in supposing it, connected with the attempt of Híppalus, and in consequence of it, the revolution in the whole course of Oriental commerce.

The advantage which Claudius made of this discovery, and the prosecution of it so beneficial to Egypt, rendered his name dear to the Alexandrians; his writings were rehearsed in their museum, and the account he gave of this commerce is justly believed by Dodwell to be the source of Pliny's information [122].

It is this circumstance which above all others induces me to fix the destruction of Aden under Claudius, or at latest under Nero, whose mind was equally fixed on Ethiopia, Arabia, and India, as the fountains of all the treasures of the east. The more important every progress made in pursuing this commerce to the source, the greater temptation there was to suppress every power which could come in competition. One thing is evident, Aden was not destroyed by any Cesar in person; for we cannot find in all history a Cesar that ever visited the southern coast of Arabia. If it was by the command of Cesar, it suits no one so well as Claudius or Nero; or if they are too

[121] Principe eorum Rachiâ, Pliny. I have no hesitation in subscribing to the opinion of Paolino, that Rachia is Rajah.

[122] Dodwell, Dissert. p. 93. from Suetonius. Claud. c. 42. But this was not their own act, it was by order of Claudius.

early, there is no other but the reign of Adrian to which it can be attributed. Adrian was in Egypt himself; his system was all directed to regulation and improvement of the provinces; this might be a part of his plan. But there is nothing in the Periplûs itself to make us adopt this period, and every thing to contradict it.

It has been necessary to investigate this fact with accuracy, because the date of the work depends upon it; for at whatever point we fix the destruction of Aden, very near to that we must fix the Periplûs; as the author intimates that it was not long before the period in which he writes. It is not satisfactory to leave this question resting upon probabilities only. But where history is silent, probability is our only guide, and correspondent circumstances are the best foundation on which probability can be built.

From these premises the reign of Nero appears most accordant to the internal evidence of the work itself, or if the reign of Adrian should be preferred, it must be the year he was in Egypt, which is the tenth of his reign, and answers to the year 126 A. D. The objection to this is its coincidence with the age of Ptolemy, which for the reasons already specified can hardly be reconciled to consistence. I assume, therefore, the reign of Claudius for the discovery of Hippalus, and the tenth year of Nero for the date of the Periplûs, leaving the question still open for the investigation of those who have better opportunities for deciding upon it with precision.

INTERCOURSE WITH INDIA ANTECEDENT TO HISTORY.

X. In entering upon this subject two considerations present themselves to our view, which must be kept perfectly separate and distinct: the first is, that the intercourse itself is historical; the second, that the means of intercourse can only be collected from circumstances: the former admits of proof; the latter is at best hypothetical. I can prove that spices were brought into Egypt, (which implies their introduction into all the countries on the Mediterranean,) and I argue from analogy, that Thebes and Memphis in their respective ages were the centre of this intercourse, as Alexandria was afterwards, and as Cairo is, in some degree, even at the present hour.

That some Oriental spices came into Egypt has been frequently asserted, from the nature of the aromatics which were employed in embalming the mummies[123]; and in the thirtieth chapter of Exodus we find an enumeration of cinnamon, kassia, myrrh, frankincense, stactè, ónycha, and gálbanum, which are all the produce either of India or Arabia. Moses speaks of these as precious, and appropriate to religious uses; but at the same time in such quantities[124], as to shew they were neither very rare, or very difficult to be obtained. Now it happens that cinnamon and kassia are two species of the same spice[125], and that spice is not to be found nearer Egypt or Palestine, than Ceylon[125], or the coast of Malabar. If then they were

[123] Mummia, or Mumia, was once a medicine, certainly not on account of the cadaverous but the aromatic substance.

[124] Five hundred shekels of myrrh, five hundred of cassia, two hundred and fifty of cinnamon.

[125] See article Kassia Kasia in the list of articles of commerce.

found in Egypt, they must have been imported; there must have been intermediate carriers, and a communication of some kind or other, even in that age, must have been open between India and Egypt. That the Egyptians themselves might be ignorant of this, is possible; for that the Greeks and Romans, as late as the time of Augustus [126], thought cinnamon the produce of Arabia, is manifest from their writings. But it has been proved from Agathárchides, that the merchants of Sabêa traded to India, and that at the time when Egypt possessed the monopoly of this trade in regard to Europe [127], the Sabêans enjoyed a similar advantage in regard to Egypt. Of these circumstances Europe was ignorant, or only imperfectly informed; and if such was the case in so late a period as a few years before the Christian êra, the same circumstances may be supposed in any given age where it may be necessary to place them.

There are but two possible means of conveying the commodities of India to the west, one by land through Persia or the provinces on the north, the other by sea; and if by sea, Arabia must in all ages have been the medium through which this commerce passed, whether the Arabians went to Malabar itself, or obtained these articles in Karmánia, or at the mouths of the Indus.

In order to set this in its proper light, it is necessary to suppose, that the spices in the most southern provinces of India were known in the most northern, and if from the north, they might pass by land; from the south, they would certainly pass

[126] See Strabo, lib. xvi. passim.

[127] Καὶ γὰρ δὴ καὶ μονοπωλέιας ἔχει. Μόνη γὰρ ἡ Αλεξάνδρεια τῶν τοιούτων ὡς ἐπὶ τὸ πολὺ καὶ ὑποδοχεῖον ἐστὶ, καὶ χορηγεῖ τοῖς ἐκτός. Alexandria has the whole monopoly to herself. She is the receptacle of all [Indian] goods, and the dispenser of them to all other nations. Strabo, lib. xvii. p. 798.

by sea, if the sea were navigated. But in no age were the Persians [128], Indians [129], or Egyptians, navigators; and if we exclude these, we have no other choice but to fix upon the Arabians, as the only nation which could furnish mariners, carriers, or merchants in the Indian ocean.

But let us trace the communication by land on the north; it is only in this one instance that I shall touch upon it; and that only because it relates to an account prior to Moses. Semíramis [130] is said to have erected a column, on which the immensity of her conquests was described, as extending from Ninus or Ninivè, to the Itámenes, (Jómanes or Jumna,) eastward; and southward, to the country which produced myrrh and frankincense; that is, eastward to the interior of India, and southward to Arabia. Now, fabulous as this pillar may be, and fabulous as the whole history of Semíramis may be, there is still a degree of consistency in the fable; for the tradition is general, that the Assyrians of Ninivè did make an irruption into India; and the return of Semíramis [131] through Ga-

[128] It is not meant to assert that these nations never used the sea; they certainly did, upon their own coasts, but there are not now, nor does history prove that there ever were, any navigators, properly so called, in the eastern seas, except the Arabians, Malays, and Chinese. The Chinese usually came no farther than the coast of Malabar, the Malays seem in all ages to have traded with India, and probably with the coast of Africa.

[129] In urbe Calechut qui Idola colunt (Gentoos), non sulcant maria, id munus Mahumetanis delegatur. Barthema in Grynæo, p. 112. who adds that there were 15000 Mahometans at Calechut.

[130] Bochart, tom. i. p. 109. from Diodôrus.

[131] When two fables of two different countries agree, there is always reason to suppose that they are founded on truth: the Mahabhárat is perhaps as fabulous as the history of Semiramis; but this work (in Col. Dow's account of it) specifies, upon a variety of occasions, the great attention of the Indian sovereigns to pay their tribute to their western conquerors. I cannot trace this to its causes or consequences, but it always seems to justify the idea, that there had been some conquest of India, by the nations which inhabited those provinces, which afterwards composed the Persian empire. It is this conquest in which the Grecian accounts of Semíramis and the Mahabhárat agree.

drôsia, by the route which Alexander afterwards pursued, is noticed by all the historians of the Macedonian. If, therefore, there is any truth concealed under this history of Semíramis, the field is open for conceiving a constant intercourse established between India and the Assyrian empire, and a ready communication between that empire and the countries bordering on the Mediterranean. This intercourse would account for the introduction of the gums, drugs, and spices of India into Egypt, as early as the 21st century before the Christian êra [132], and 476 years antecedent to the age of Moses.

But this is not the leading character in the accounts left us by the Greek historians [133]; they all tend to Phênicia and Arabia. The Arabians have a sea coast round three sides of their vast peninsula; they had no prejudices against navigation either from habits or religion. There is no history which treats of them, which does not notice them as pirates or merchants by sea, as robbers or traders by land. We scarcely touch upon them accidentally in any author, without finding that they were the carriers of the Indian ocean.

Sabêa, Hadramaut [134], and Oman were the residence of navigators in all ages, from the time that history begins to speak of them; and there is every reason to imagine that they were equally so, before the historians acquired a knowledge of them, as they have since continued down to the present age.

[132] Semíramis, A. C. 2007. Moses in Midian 1531. Blair.

[133] Herôdotus, lib. iii. p. 250. reckons up frankincense, myrrh, kassia, cinnamon, ladanum, (a gum,) and storax as the produce of Arabia: these commodities were brought into Greece by the Phênicians. See also p. 252.

[134] Hadramaut is the Atromítis of the Greeks; it is nearly centrical between Sabêa and Oman on the ocean. Oman is the eastern part of Arabia, towards the Gulph of Persia. Sabêa is Yemen, on the Red Sea, but extends, or did anciently extend, to the ports on the ocean, as Aden, &c.

It is surely not too much to admit that a nation with these dispositions, in the very earliest ages crossed the Gulph of Persia from Oman to Karmánia: the transit in some places is not forty miles; the opposite coast is visible from their own shore [135]; and if you once land them in Karmánia, you open a passage to the Indus, and to the western coast of India, as a conclusion which follows of course.

I grant that this is wholly hypothetical; but where history stops, this is all that rational inquiry can demand. The first history to be depended on, is that of Agathárchides. He found Sabêa, or Yemen, in possession of all the splendour that a monopoly of the Indian trade must ever produce, and either here, or in Hadramaut, or Oman, it must ever have been: these provinces all lie within the region of the monsoons, and there is every reason to imagine that they had availed themselves of these in the earliest ages, as well as in the latest. I conclude that their knowledge in this respect is prior to the building of Thebes; and that if the monopoly on the eastern side of the Red Sea was in their hands, that on the western side was fixed at Thebes. The splendour of that city, still visible in its very ruins, is no other way to be accounted for: it is exactly parallel to the case of Alexandria in a later period; for Alexandria did not trade to India, the monopoly was still in Sabêa when Agathárchides wrote, and the monopoly at Alexandria was as perfect in regard to the Mediterranean, as that of Sabêa was in regard to the Indian ocean. The wealth of the Ptolemies was as pre-eminent as that of the Thebaick Dynasties, and the power and conquests of a Philadelphus

[135] Strabo, lib. xvi. p. 769, et sec. 99.

or Euérgetes[135] less fabulous than those of Osymánduas or Sesonchôsis.

That the Grecian Dynasty in Egypt tried every experiment to evade the monopoly at Sabêa, is manifest from history. The straits[137] of the Red Sea were passed, the ports of Arabia on the ocean were explored, the marts on the coasts of Africa were visited, Indian commodities were found in all of them. A proof direct, that the monsoon was at that time known to the Arabians[138], though history knew nothing of it till the discovery of Híppalus; that is, till 200 years later: this is the more extraordinary, as the fact had been ascertained in part by the voyage of Nearchus, and as all its consequences would have been explored, if Alexander had lived another year. I wish to be understood as never asserting that the voyage between Egypt and India was utterly unpractised by the Greeks; the evidence is clear, that some few vessels performed it, but they coasted the whole way[139]: the greatest number is that mentioned by Strabo of an hundred and twenty ships. The expence of such a navigation did not answer; it was found

[135] Euérgetes says, in the Adulitick Inscription, he had reduced the *whole* world to peace. Sesonchôsis could do no more.

[137] Strabo, lib. xvi. p. 773.

[138] I had expected to find an account of the monsoons in the Oriental writers; but as my acquaintance with them by translations only, must be very confined, I have met with little information on the subject. Ventus marinus sex integris mensibus regnat in illo, [mari tenebroso,] et tum in alium ventum convertitur. Al Edrissi, p. 34. the *Mare Tenebrosum* is the ocean which surrounds the world. An inference may be drawn from the Arabian voyagers of Renaudot, that they also crossed the Indian ocean by the monsoon.

[139] Περιπολπίζοντες. Periplûs. Strabo does certainly fully mean to say, that a considerable fleet went to India, but not till the Romans were masters of Egypt; and whether they performed the whole voyage, or only to Arabia for Indian commodities, is a question. If we suppose them to reach the mouths of the Indus, it is the full extent that can be required; for Pliny expressly says, that the ports on the coast of Malabar were only beginning to be known in his age. In what way they sailed previous to the Periplûs will be noticed in its proper place.

cheaper to purchase Indian goods in the old markets: the passage by the monsoon was never attempted; and the solitary fact of all history, which I can discover, previous to Hippalus, is that in the fabulous account of Iambûlus. I believe that fact, not as performed by Iambûlus, but as an evidence that some such passage had been heard of, that an obscure notion prevailed that it was made from the coast of Africa, and that, therefore, it was interwoven with the piece to give the fable an appearance of reality. I believe it to have had its rise from Arabia; and it is one proof among others, that the Arabians did reach India prior to history, and a sufficient reason why the Greeks found it preferable to purchase their cargoes in the Arabian markets, rather than to go to India themselves. A truth certainly, if the Arabians sailed with the monsoon, and the Greeks coasted the whole voyage.

These considerations taken in the mass, induce a belief that in the very earliest ages, even prior to Moses, the communication with India was open, that the intercourse with that continent was in the hands of the Arabians, that Thebes had owed its splendour to that commerce, and that Memphis rose from the same cause to the same pre-eminence. Sir Isaac Newton supposes Osíris, Bacchus, Sesostris, and Sesak, to be one and the same person. If this could be established, we could fix the splendour of Thebes in the reign of Sesak, who is contemporary with Rehoboam, in the year 978 before Christ. Thebes is the No-Amon of Jeremiah, xlvi. 25. and Ezekiel, xxx. 14, 15, 16. The fall of Thebes was effected by Nebuchadnezzar, in 581 A.C., for he is said to have conquered Egypt from Migdol to Seoene, that is, from Magdulum to Syênè, which necessarily includes Thebes, (Septuagint and Prideaux;) but

its ruin was completed by Cambyses. Psammênitus, indeed, the last king, was taken at Memphis, and not at Thebes, 528 A. C. but Camby'ses passed through all Egypt, and entered Ethiopia; and in this march he must have visited Thebes, and probably destroyed the temples there. Memphis is the Mesr of Scripture, from Misraim: it possibly rose into importance after the invasion of Nebuchadnezzar, but existed from a much earlier period, though not as a capital; for the ancient metropolis of Lower Egypt was Heliópolis, the On of Scripture, now called Mataréa, in its ruins; and Heliópolis is at least as old as the patriarchs, apparently the residence of the Pharaohs, and the head of that kingdom which was governed by Joseph. The sovereignty was afterwards transferred to Memphis, built by Menes, who reigned as immediate successor to the gods, or by the succeeding sovereign Amenophis, from whom its name is derived; the Menuph, Noph, or Moph of the prophets. (See Sir Isaac Newton's Chronology, p. 197.) The seat of government, under the Persians, was at Memphis; at Alexandria, under the Macedonians and Romans; and Cairo, still called Mesr or Metzr by the Arabians, was the creation of the Mahomedans. This slight sketch gives us all the fluctuations of power, and all the different seats of commerce in Egypt, exclusive of the fabulous chronology and fictitious history of the priests, during the period previous to Sesak. The system of Sir Isaac Newton has not been generally admitted; but from Sesak, in 978 before our êra, the whole arrangement is consistent; and that Sesak was the Sesostris of Heródotus seems highly probable: his conquests in Phênicia, Syria, and Palestine, are enumerated among his other expeditions by Heródotus; and his passing the straits of Bab-el-Mandeb into the

Erythrêan ocean is suitable to his ambition. That his successes and victories were magnified by the priests of Egypt there can be no doubt; but that commerce was his object, as well as dominion, is manifest from his establishing a fleet on the Red Sea, and passing the straits: both which prove that his views were directed either to Arabia, or Africa, or the countries farther to the east. The produce of those countries came into his own territories by some conveyance or other; and his design was to obtain this in its native ports, in conformity with the attempts of the Greeks and Romans in a later period. The essential difference between the native capitals and Alexandria proves, past contradiction, the different spirit and superior system of the Greeks. For these capitals were inland for the sake of security: a proof that the natives were rarely navigators, and never sovereigns of the sea. The Greeks were both; and the capital of the Ptolemies was therefore Alexandria. Their fleets were superior to all that had ever appeared on the Mediterranean; and the power of their kingdom such, that nothing but a succession of weak and wicked princes could have destroyed it. While Egypt was under the power of its native sovereigns, Tyre, Sidon, A'radus, Cyprus, Greece, Sicily, and Carthage, were all enriched by the trade carried on in its ports, and the articles of commerce which could be obtained there and there only; the Egyptians themselves were hardly known in the Mediterranean as the exporters of their own commodities, they were the Chinese of the ancient world, and the ships of all nations [140], except their own, laded in their harbours.

[140] Ψαμμήτιχος .... παρείχετο φορτία πᾶσι τοῖς ἐμπόροις μάλιστα δὲ τοῖς Φοινιξὶ καὶ Ἕλλησι. Diod. lib. i. p. 77. Psammêtichus supplied all merchants with cargoes, but particularly the Phênicians and Greeks.

The system of the Ptolemies was exactly the reverse. Alexandria grew up to be the first mart of the world, and the Greeks of Egypt were the carriers of the Mediterranean, as well as the agents, factors, and importers of Oriental produce. The cities which had risen under the former system, sunk silently into insignificance; and so wise was the new policy, and so deep had it taken root, that the Romans, upon the subjection of Egypt, found it more expedient to leave Alexandria in possession of its privileges, than to alter the course of trade, or occupy it themselves. Egypt, in strict propriety, was never a Roman province, but a prefecture, governed, not by the senate, but the emperor himself. No pretor or proconsul ever had the command; no man above the equestrian order was ever prefect; no Roman [141] ever entered the country without the express licence of the emperor. These circumstances are particularized to shew the wisdom of the Greeks in their establishment of the system, and the wisdom of the Romans in contenting themselves with the revenue, rather than the property of the country [142]. This revenue, amounting to above three [143] millions sterling, they enjoyed for more than six hundred years [144]; and, till the mo-

[141] One charge brought against Germanicus by Tiberius, was his going into Egypt without permission.

[142] It does not appear that any Roman in Egypt was allowed to engage in commerce. In the early part of their government at least, all the names we meet with in the trade of the Red Sea, Africa, and India, are Greek. Arrian, Dionysius, &c. &c.

[143] Sicard says, to three hundred millions French, *i. e.* 12,454,500*l.*; but that it pays the Turk only twelve millions, *i. e.* 498,380*l.* Lettres Edif. t. v. 7. Hoffman (in Caryophyllo) says, the Sultan of Egypt lost on the revenue of spices only 80,000 ducats a-year, after the discovery of the Portuguese. The amount seems moderate.

[144] It is the stability of the Roman conquests which distinguishes them from those of other nations. If we place the meridian power of Rome in the age of Augustus, it was 700 years in rising, and 1400 years in falling. The sovereignty of Egypt, for 600 years, is of greater duration than that of any native or foreign dynasty not mythological; and this sovereignty, notwithstanding particular intervals of tyranny, does seem upon the whole to have been exercised for the good of the people,

ment of the Arabian conquest, Alexandria continued the second city of the empire in rank, and the first, perhaps, in commerce, prosperity, and wealth.

These considerations are by no means foreign to our purpose: it is the design of this work to exhibit the trade with India under every point of view in which it was regarded by the ancients; but if it were not my determination to close my researches with the voyage of Gama, I could now shew how a contrary policy has brought the richest country in the world to its present state of misery. Policy, I say, because it was the wretched system of Selim to divide the power between the sovereign of Constantinople and the Mamelucks, lest the Pashaw should seize the government, and erect an independent kingdom. The consequence is, that the revenue of the Porte has been gradually diminishing [145], till it is reduced to nothing, by the charges of administration set off against the receipt. The revenue is still large, but nothing in comparison of what it would be, if the merchant were secure from exactions, or the cultivator from oppression; for a great proportion of the Indian trade would still come through Egypt to the Mediterranean, if the customs were fixed, the trade protected from the plunder of the Arabs, the rapine of the government, and the extortion of the Jews, who are the farmers of the revenue. The total, with all this oppression, is still estimated at twenty millions of dollars, or four

which is the end of all government. When Egypt fell, its prosperity, though impaired, was probably superior to that of any other province of the empire. The revenue I take at a medium from the calculation of Strabo, who says, that under Aulêtes, the worst of the Ptolemies, it was 2,421,875*l.*; but he adds, that the Romans managed it to much greater advantage, and even doubled it. Strab. lib. xvii. p. 798.

[145] In the year 1566, the revenue received by the Porte was only 600,000 ducats, Hackluyt, ii. 200. little more than 150,000*l.*, while it produced near 3,000,000*l.* to the worst of the Ptolemies, and perhaps double that sum to the Romans.

millions sterling, by Sir Home Popham, which, however, the trade at Suez and Cossir does not seem to justify; and if it is calculated on the miri, or land revenue, the cultivation does not authorize. But whatever the revenue may be, it would be increased beyond all that was ever levied in the country, if commerce and agriculture were left to their natural course; for it is still a channel for the wealth of India, and the waters of the Nile still fertilize the richness of the soil. A power divided and undefined produces of necessity a bad government, and a bad government cuts down the tree to come at the fruit, and is not content with the golden egg, but kills the bird which laid it.

THE

PERIPLUS

OF THE

ERYTHREAN SEA.

BOOK II.

Introduction.—I. *Muos Hormus.*—II. *Bereníkè.*—III. *Inland Navigation to Koptus.*—IV. *Ptolemáis Thêrôn.*—V. *Adooli, Abyssinia.*—VI. *Dîræ, Straits of Bab-el-Mandeb.*—VII. *Abalîtès.*—VIII. *Maláo.*—IX. *Moondus.*—X. *Mosyllon.*—XI. *Niloptoleméon.*—XII. *Marts, Tapatêgè, Daphnôna Micron, Elephas Prom. Rivers, Elephas, Daphnôna Megan, or Acannai.*—XIII. *Tabai.*—XIV. *Opônè.*—XV. *Apókopa.*—XVI. *Little Coast, Great Coast.*—XVII. *Serápiôn, Nikôn, Seven Rivers.*—XVIII. *The New Canal or Mombaça.*—XIX. *Rhapta, or Quiloa.*—XX. *Menoothêsias, or Zanguebar Islands.*—XXI. *Prasum of Ptolemy.*—XXII. *Menoothias of Ptolemy.*—XXIII. *Limit of Ancient Discovery.*—XXIV. *Heródotus.*—XXV. *Ptolemy.*—XXVI. *Discoveries of the Portuguese, Covilham, Marco Polo.*—XXVII. *Voyages of Diaz and Gama.*—XXVIII. *Arabian Settlers, Ancient and Modern on the Coast of Zanguebar.*

" Orientalem oram Africæ sulcavit Auctor Peripli, cujus auctoritas majoris est
" facienda quàm cæterorum omnium, utpote qui solus veritati consentanea
" scripserit." Vossius ad Melam. p. 595. ed. Varior. Lugd. 1722.

THE object proposed for consideration in the second book is the navigation of the ancients from Muos Hormus in the Gulph of Arabia, to the Promontory of Rhaptum [1] on the coast of Africa. Muos Hormus lies in the twenty-seventh degree of northern latitude, and Rhaptum will be fixed near ten degrees to the southward of the equator; consequently we have a space of above two thousand five hundred miles to examine, involved in such obscurity, that without recourse to modern discovery, the navigation of the ancients is inexplicable.

The Periplûs, which has been assumed as the basis of our disquisition, has a claim to this preference, not only as the most ancient but the most specific account extant; for notwithstanding particular places may have been noticed in treatises of a prior date, the line of coast which it embraces is to be found no where previously in detail; and the circumstances which it particularizes bear such a stamp of veracity, as to assure us, that if the voyage was not performed by the writer, it is at least delineated from the most authentic documents of the age.

[1] Ptelemy writes both Rhapta and Rhaptum, the Periplus always Rhapta, plural.

But the internal evidence of the work itself is sufficient to assure us, that the author was a merchant, and the merchant a navigator. He writes for the information of persons of his own profession; and as he supposes the Gulph of Arabia familiar to all that were engaged in commerce at Alexandria, he dwells much more particularly on the more distant regions than those nearer home. This is the reason that within the gulph there is no circumstantial account, till we arrive at Adooli on the western side, or Moosa on the eastern; and that when he launches into the ocean, we have the coast of Azania and India in detail.

Another cause which operates to the same effect is the nature of the navigation within the gulph; for he expressly mentions, that in his time the voyage from Bereníkè to Okêlis, and from Leakè Komè to Moosa, was direct down the mid channel, without regard to the coast. The same we may presume of the passage from Muos Hormus to Adooli, as he mentions only two intermediate ports, Bereníkè and Ptolemáis Thêrôn, and these with few particulars, on a coast nine hundred miles in extent.

This is in one sense to be regretted, for had the merchant proceeded on this coast, as Nearchus traced the desert shores of the Mekran, we should have had the opportunity of comparing his progress with that of John de Castro[2] in 1541, and

[2] John de Castro was captain in the fleet, commanded by Don Stephano de Gama, sent from Goa to burn the Turkish navy collecting at Suez, for the siege of Diu. In the passage up the Red Sea, he seems to have had the whole care of conducting the fleet; but when they arrived at Suez with sixteen gallies only, they found the attempt on the Turkish forces impracticable. The journal of de Castro was found on board a Portuguese prize, and brought to England; when a translation of it was procured by Sir Walter Raleigh, which is inserted in Purchas, vol. ii. p. 1122. and published again in Astley's Collection, vol. i. p. 107. where there is an excellent commentary on it by Green. De Castro was afterwards viceroy of Goa, when he raised the second siege of Diu with great glory. He died not

establishing all the points of ancient geography in a tract that is remarkably obscure. The course of de Castro is an exact counterpart to the voyage of Nearchus: he set out from Masua [Adooli] with a fleet; but the larger ships he soon dismissed, and proceeded with sixteen gallies only along the whole western coast of the gulph to Suez. This voyage he performed by adhering constantly to the shore, rowing for the most part, and sailing only with accidental snatches of the land winds, anchoring almost every night, and particularizing every cape, bay, port, or shoal in his passage: in short, if we had found a de Castro on the coast of Gadrôsia, or a Nearchus in the gulph of Arabia, it would have afforded one of the most pleasing speculations of geography to compare an ancient with a modern voyage, where both were conducted upon the same principles, and by the same means; excepting only the advantages which the moderns derived from their instruments and their experience.

Some particulars which concern this navigation generally will not be foreign to our purpose; for we learn from de Castro's journal, that the wind in the gulph, which is almost constantly north-west, except during fifty days in March and April, does not prevail regularly, but is subject to fluctuation[3] near the coast; it is not represented as the land and sea breeze, which takes place within the region of the monsoons, but merely as a deviation from the prevailing wind of the gulph. This circumstance explains the course of the ancients from Berenikè or

long after at Goa, and there were found in his possession three rials only as the whole of his substance. Such were the early commanders of the Portuguese in the East!

[3] De Castro had the wind at south-east at Comol, lat. 23° 30′ 0″, on April 7th. This might be the Gumseen.

Leukè Komè to the straits; for had they followed the coast, as was the practice in other instances, they would have found occasional obstructions from the wind: and this was the reason why they preferred a course down the mid channel; this likewise is the reason why the native vessels from Suakem keep close to the western[4] shore, as high as the Jaffateen islands, in order to secure their passage to Judda.

Another circumstance he notices, that does not do much honour to the attention or sagacity of the Ptolemies, which is, that the number of safe harbours, creeks, bays, and inlets is infinite, whereas Bereníkè and Ptolemáis Thêrôn were merely roads, where the ships anchored, and made use of boats for their communication with the shore. The shoals in Foul Bay, in which Bereníkè is situated, and those near Ras Ahehaz in the vicinity of Ptolemáis Thêrôn, he describes most graphically, in correspondence with Agathárchides and the Periplûs, and is in full harmony with Bruce, who notices all the shoals with deep water on their edge, and the same in every harbour on the coast without bar or obstruction.

These circumstances, relating generally to the navigation upon which we are now to enter, will not appear superfluous, if they contribute to illustrate a most obscure subject; and I am only sorry that the Periplûs affords such slender opportunity of turning them to advantage; for the journal of de Castro is one of the finest specimens bequeathed to us by the illustrious navigators of Portugal, and continues to this day the best foundation of geographical accuracy on the western coast of the Arabian gulph.

[4] This passage is marked on Bruce's map.

Muos Hormus.

I. The survey now commences from Muos Hormus[5], a port chosen by Ptolemy Philadelphus for the convenience of commerce, in preference to Arsínoè or Suez, on account of the difficulty of navigating the western extremity of the gulph.

The name of this port shews its origin to be Greek; it signifies the harbour of the Mouse[6]; an appellation which it afterwards changed for that of the harbour of Venus. And here, if the reader will advert to Aphrodítè, the Greek title of Venus, as springing from the foam of the ocean, it will immediately appear that the Greeks were translators in this instance, as well as in Dióspolis, Latópolis, and many others; for the native term to this day is Suffange-el-Bahri[7], the sponge of the sea; and the vulgar error of sponge being the foam of the sea will immediately account for Aphrodítè. But Muos Hormus is the name more prevalent, and the other is recorded by Agathárchides only and his copyists. Its situation is determined by three islands, which Agathárchides mentions; known to modern navigators by the name of the Jaffateens, and its latitude[8] is fixed with little fluctuation in 27° 0′ 0″, by d'Anville, Bruce, and de la Rochette. The presumption in favour of de la Rochette's accuracy is natural, as he had the charts and journals of several English navigators before him, and the posi-

[5] De la Rochette has made two ports of the Muos Hormus and Aphrodítes Hormus of Strabo, but they are both the same, if Strabo is to be interpreted by Agathárchides, whom he copies; his translator indeed says, Muris statio *aliaque* Veneris, but the text does not require the distinction. See Hardouin. not. ad lib. vi. Plin. cvi. The Muos Hormus of de la Rochette I should prefer for the true position. There are, however, two harbours noticed by de Castro; that on the north of the island is the better.

[6] The harbour of the Muscle. Bruce, vii. 314. 8vo. ed. Pearls in muscles, ibid. from μύειν, nictere. The Pinna, he adds, has the finest pearl. See Plate XLIII. Peninim in Hebrew, Job, xxxviii. 18. Proverbs, xxxi. 10.

[7] From Suffange our English term is S'funge, S'phunge, Spunge.

[8] Ptol. 27° 15′ 0″, 27° 8′ 0″, by de la Rochette.

tion of the islands [9] with the indenture of the coast, is such as would sufficiently correspond with what the ancients called a port. Strabo describes the entrance as oblique [10], which was perhaps effected by the site of the island at the entrance; and he notices that the ships which sailed from Berenikè lay at this port till their cargoes were prepared.

II. The same reason which induced Philadelphus to form the port of Muos Hormus, led him afterwards to the establishment of Berenikè, with this additional motive; that being in a lower part of the gulph, it facilitated the communication with the ocean, or the coast of Africa, and lay more convenient for taking advantage of the regular winds within the straits, or the monsoons in the Indian ocean. The plans of Philadelphus, indeed, seem to have been larger than either he or his successors carried into execution: he had evidently sent travellers to penetrate into the interior by land, while his fleet was exploring the coast. Pliny mentions the names of Dálion, Aristócreon, Bion, and Básilis [11], as visitors of Ethiopia; and Simónides as residing five years at Meroè; while Timósthenes [12] went down the coast as far, perhaps, as Madagascar, but certainly lower than the fleets of the Ptolemies traded [13], or the Roman fleets

BERENÍKE.

[9] Περοκεῖσθαι δὲ νήσους τρεῖς. Strabo, xvi. 769. The Jaffateens are more than three; but the smaller ones are perhaps little better than rocks above water. De Castro calls them three.

[10] Λιμένα μέγαν, τὸν εἴσπλουν ἔχοντα σκολιόν. Strab. ibid.

[11] Plin. lib. vi. c. 35.

[12] There is some reason to hesitate in giving credit to Timósthenes, as he says the Red Sea is two days sail across and *four days* sail in length. Plin. lib. vi. Four days (if it be not an error of Pliny's) cannot by any means suffice for a course of nine hundred miles. See Fragm. Artem. Hudson, vol. i. p. 88.

[13] This is similar to what has happened relative to our own discoveries. Sir F. Drake explored the western coast of America, to the north of California, where scarcely a navigator followed him till more than 200 years after, when the English, Russians, and Spaniards have interfered with each other in Nootka Sound. In the same manner also the Carthaginian commerce on the coast of Africa settled at Cernè, though Hanno had gone much farther to the south.

in the age of the Periplûs. The account of Agathárchides, who lived in the reign of Philomêtor, goes no lower on the western side of the gulph than Ptolemáis Thêrôn; and in his time the commerce seems so generally to have settled at Muos Hormus, that no mention of Bereníkè occurs in the whole work[14]. Under the successors of Philomêtor, this trade languished rather than increased, nor was it reinvigorated till the conquest of Egypt by Augustus.

The connexion between Muos Hormus and Bereníkè, from which ports the navigation commenced, requires more consideration than has been bestowed upon it by those who have preceded me in the inquiry.

Bereníkè, according to the Periplûs, was distant eighteen hundred stadia from Muos Hormus, which, if the author reckons ten stadia to the Roman mile, (as d'Anville supposes,) amounts to one hundred and eighty; or if he reckons eight, we obtain two hundred and twenty-five miles, for the interval between the two ports; both estimates are too short, as the distance from the northern Jaffateen to Ras-el-anf[15] is little less than two hundred and sixty miles Roman. Without insisting upon this, Ras-el-anf is the leading point to fix Bereníkè, for this is the Leptè Promontory of Ptolemy, on which Bereníkè depends. "The land here," says Bruce, "after running in a "direction nearly N. W. and S. E. turns round in shape of a

[14] Neither does Diodôrus notice it, who wrote, perhaps, early in the reign of Augustus, and followed Agathárchides. But Strabo is diffuse; and he adds one particular which may account for the silence of Agathárchides, which is, as we have just noticed, that Bereníkè, though a station, was no port. The harbour was at Muos Hormus; and the ships lay there till they came to Bereníkè for their lading. The Periplûs also seems almost to join the two together, at the commencement of the Arabian voyage.

[15] Cape Nose.

" large promontory, and changes its direction to N. E. and " S. W. and ends in a small bay or inlet." Now this agrees exactly with the position assigned to Bereníkè by Strabo, in the very inmost recess of his Sinus Impurus. It may seem extraordinary [16], that the name of Foul Bay [17] should appear upon our modern charts in this very spot, and marked with the shoals and breakers which entitled it to the same appellation in the time of Strabo. But such is the fact, and de la Rochette's chart [18] gives us a small anchorage or inlet in the very bottom of the bay, which he styles Minè, or Belled-el-Habesh [19], the country of Abyssinia. These circumstances are further corroborated by the chart which Mercator extracts from Ptolemy, and by Ptolemy's own distances in longitude and latitude from Leptè. Col. Capper [20] has supposed that the site of Bereníkè cannot be determined, and d'Anville has placed it nearer to Leptè; but in this, it is probable he was determined by the latitude of Syênè, for both are supposed to be tropical, and Col. Capper has possibly not applied his superior information to this object. I fix it at the port of Habesh, not from latitude, but local relation. For Syênè is in latitude 24° 0′ 45″, and this port is in 23° 28′ 0″, according to de la Rochette. If

[16] From the appearance of Foul Bay, on de la Rochette's chart, I concluded it to be a modern nautical name; but its correspondence with the ancient Sinus Impurus is confirmed by d'Anville as well as de la Rochette. See his Golfe immonde. And if this is established, Strabo's expression, ἐν βύθει τῷ κόλπῳ, *in the inmost recess of the bay*, ought, in my opinion, to determine the question.

[17] Ακάθαρτος is rendered improperly by *impurus* and *immundus*. It is literally both here and in the Periplus, p. 12. what we should call in English, Foul Bay, from the foulness of the coast, shoals, and breakers. Ακάθαρτον Κόλπον . . . οὕτω ἀκάθαρτον ὁτὶ ὑφάλοις χοιράσι καὶ ῥαχίαις ἐκτετράχυται, καὶ πνοιαῖς καταιγιζούσαις τὸ πλέον· ἐντᾶυθα δὲ ἱδρυσθαι Βερενίκην πόλιν ἐν βύθει τῷ κόλπῳ. Strabo, lib. xvi. p. 769.

[18] D'Anville has the same, and Bruce the bay.

[19] Minè signifies a *fort* or castle, and Belled a *country*. The principal Mameluk at Cairo is styled Sheik-el-Belled, the sheik of the *country*.

[20] Page 57.

then we were to be determined by the tropick, the port of Habesh is more tropical than Syênè. But the ancients were by no means accurate in these coincidences. Meroè and Ptolemáis are still less reconcileable than Bereníkè and Syênè; and yet the respective correspondence of the four places was admitted. I am much more led by existing circumstances than these estimates: a coast falling in, as described by the original voyagers, and a port found at the termination where it ought to be, tend more to ascertain a position when ancient accounts are to be considered, than astronomical calculation. On this ground I assert the identity, though I know the difficulties, I know that the Topaz island of Strabo is dubious [21], but a choice is necessary, and I select the port of Habesh for Bereníkè as a point where all the general characters best correspond.

Both from Muos Hormus and Bereníkè, the fleets sailed for Africa and Arabia in the month of September; and for India in July [22]; dates which agree admirably with the regular winds, as stated by Bruce and Forrest. For, in the first instance, if they cleared the gulph before November, they in that month fell in with the wind, which carried them down the coast of Africa, and which served them to return in May. And in their voyage to India, sailing in July, if they cleared the gulph before the 1st of September [23], they had the monsoon for nearly

[21] There was a Sapphire, an Emerald, and a Topaz island in the Red Sea; all three give rise to much fable and much uncertainty. Strabo's Topaz island is the same as this Serpentine. Whether both names ought to relate to the island at Ras-el-anf, I cannot say. That island is the Macouar of Bruce; the Emil or Emerald island of de la Rochette, the Insula Veneris of Ptolemy. Strabo's Topaz island is lower than Bereníkè. It may be the modern Zemorgete, the Agathonis Ins. of Ptolemy, but the confusion is endless.

[22] See Periplûs, pp. 5, 14, 29, 32. The author mentions the Egyptian as well as the Roman months Tybi, January; Thoth, September; Epiphi, July. A proof that he was a resident in Egypt, if not a native, and that he wrote for the traders in that country.

[23] This is fixed to a certainty by Pliny, who says, they sailed at the rising of the Dog-

three months to perform the voyage to the coast of Malabar, which was generally completed in forty days.

III. But before we enter upon our navigation we must examine the previous preparations in Egypt, commencing our inquiries from Alexandria, the head and centre of all the commerce between India and Europe for seventeen centuries [24].

The principal merchants, who carried on this commerce both under the Ptolemies and the Romans, resided at Alexandria; and though the Ptolemies, for their own interest, might allow others to employ their capital in this trade, and the Romans certainly would not suffer themselves to be wholly excluded, still the standing law of the country was, that every merchant must employ an Alexandrian factor for the transaction of his business; and this privilege alone, with the profits of the transport, is sufficient to account for the immense wealth of the metropolis [25], exclusive of all other advantages.

In the latter end of July the annual or Etêsian wind commences, the influence of which extends from the Euxine Sea to Syênè in Upper Egypt. Blowing from the north it is directly opposite to the course of the Nile, and prevailing for forty days while the river is at the height of its swell, it affords an opportunity of advancing against the stream, with more convenience than other rivers are navigated in their descent. With the assistance of this wind, the passage from Alexandria up to Koptus was performed in twelve days, which, as the distance is above

Star, July 26, and reached Okêlis in thirty days, from whence to Muzíris the voyage is usually performed in forty days. Lib. vi.

[24] Eighteen, reckoning from the death of Alexander.

[25] The revenue of Alexandria, in the worst of times, was 12,500 talents, equal to 2,421,875*l.* sterling. Strab. xvii. 798.

four hundred miles [26], sufficiently proves the efficacy of the wind that carried them.

Two miles from Alexandria, says Pliny, is Juliópolis, where the navigation to Koptus commences; an expression not very intelligible without the assistance of Strabo. For why should he mark the departure from Juliópolis rather than Alexandria? Strabo informs us, that the vessels navigated a canal, which extended from Alexandria to the Kanôpic branch of the Nile, at the junction of which was Schédia; here all the duties were collected on goods which passed upwards into Egypt, or down the Nile to Alexandria. This canal [27] in its course almost touches Nikópolis [28], (a city so called from the victory obtained here by Augustus over the forces of Antony,) and which, by its distance of thirty stadia [29], must be the Juliópolis of Pliny. It is probable, therefore, that before the time of Pliny, the Custom-house had been removed from Schédia to this place.

It is then by the Kanôpic branch, now almost neglected, that vessels passed up to Memphis, and thence to Koptus. Koptus was a city in the age of Strabo who visited it, common to the Arabs [30], as well as the Egyptians; it was not actually

[26] Three hundred and eighty, without allowing for the sinuosity of the river.

[27] This canal has still water in it during the inundation, and boats pass.

[28] See Dion. Cassius, lib. ii .p. 280. Lat. ed.

[29] Strabo, lib. xvii. p. 795.

This is as nearly as possible the site of Aboukir, become still more important by the victory of the gallant Nelson.

[30] The present government of Egypt is divided between the Turks, the Mammelucs, and the Arabs. The Turks, though sovereigns, have the least share. The Mammelucs have twenty-four beys, nominally dividing the whole country from the sea to Syênè, all-powerful at Cairo, but never complete as to their number in the country, and sharing their influence with the Arab sheiks. The Roman government was firm and imperious, but even under that, as appears from this passage of Strabo, the Arabs found means to insinuate themselves into a share of the power at Koptus, and, as we may from this circumstance conclude, possibly in other places.

on the Nile, but connected with it by a canal, and was the centre of communication between Egypt and the Red Sea, by a N.E. rout to Muos Hormus, and a S.E. to Bereníkè. Upon reference to the map the reason of this is evident. The river bends here towards the east, and in proportion to its inclination shortens the distance of land carriage. Koptus is seated almost in the centre between Ghinnè and Kous [31]. Ghinnè is the ancient Kênè [32], and is the modern point of communication with Coseir [33]; the port on the Red Sea, where the commerce which remains is carried on between Upper Egypt and Arabia. Kous arose in the middle ages from the same cause, and became the principal mart of the Said [34]. These three places all lie on the same curvature of the river, and all grew into importance at different periods, from the same cause; the necessity of conducting land carriage by the shortest road.

It has been already noticed, that notwithstanding Bereníkè was built by Philadelphus, the route of the caravan thither, and the port itself were little frequented, as long as the Ptolemies reigned in Egypt. The first mention I can find of it is in Strabo, and he visited the country after it was under the power of the Romans. The Romans saw what Philadelphus had designed, and they had the penetration, from their first entrance into the country, to reap the advantages which his successors had neglected. In the course of six or seven years an hundred and

[31] See Schultens in voce, Kus, Kous, ad vitam Saladini.

Est autem Kus Civitas primaria Thebaidis, nullaque major præter Fhustatam in tota extat Ægypto, emporium præbet mercatoribus Adenensibus, a Copto Parasanga, duodecim dierum iter a Fhustata. Abulfeda, lat. 24° 30′, long. 51° 30′.

[32] Καινὴ πόλις, Neapolis, or the new city, by its name evidently of Greek extraction.

[33] Irwin reckons one hundred and fifteen miles from Coseir to the Nile, vol. i. p. 234. Brown rode it on dromedaries in three days.

[34] D'Anville, Geog. Anc. vol. iii. p. 33.

twenty ships sailed annually from this port for India [35]; these, indeed, were but a small part of the whole. The bulk of the trade still passed by Koptus [36] to Muos Hormus, and continued in the same course till the period in which the Periplûs was written; this is the principal reason which induces me to believe that the Periplûs is prior to Pliny, and assign it to the reign of Claudius, or Nero; for Pliny is the first that specifies the stages of the caravan, or gives us reason to believe that Bereníkè was the grand centre of commerce. That it was not so when the author of the Periplûs wrote is evident, because he commences his route from Muos Hormus [37], a proof that he considered it as the first port of departure.

[35] It has everywhere been supposed, that single ships did sail both to India and Africa by coasting, previous to the discovery of Hippalus; it has everywhere been allowed that the Arabians traded to India, and the Indians to Arabia, and probably with a knowledge of the monsoon. But this passage of Strabo's stands alone as an evidence, that a fleet sailed from Egypt directly to India. If it did sail, it must still have coasted the whole way. But might not Strabo, from knowing they brought home Indian commodities, have supposed that they sailed to India, when in reality they went no farther than Hadramaut in Arabia, or Mosyllon on the coast of Africa; where they found the produce of India?—I do not approve of contradicting the assertion of any intelligent author, such as Strabo; but I recommend it to the consideration of better judges, whether a circumstance of this magnitude ought to be established on a single passage. It is also to be noticed, that Arabia was sometimes called India by the ancients, not from error, but because it was on the other side of the Red Sea, and because the commodities of India were found there. So Indorum promontorium in Juba, the same as Leptè Acrè is Ras-el-Anf, whence the trade to India commenced. Indos Juba vocat Æthiopas Troglodytas. Hardouin, not. ad Plin. vi. 34. but Hardouin is mistaken, and probably Juba. It is the Indian Cape and Port, so called from the Indian trade at Bereníkè. In what sense the fleets sailed from Egypt to India, will be considered at large in the fourth book. See Scaliger Emend. Temp. p. 681.

[36] Αλλὰ νῦν ἡ Κοπτὸς καὶ ὁ Μυὸς ορμος Ἐυδοκιμεῖ καὶ χρῶνται τοῖς τόποις τούτοις. Strab. lib. xvii. p. 815. See a very remarkable passage in Ptolemy, lib. i. c. 7. on the southern stars.

See the destruction of Coptus by Diocletian. Gibbon, i. 369, *i. e.* 439. But Eusebius in Chronic. places it earlier. See his note also on the passage. Zonaras, p. 640. tom. i. Par. ed.

[37] Whether Muos Hormus and Bereníkè may have been comprehended in the mention of one as conjectured above, must remain a doubt, as there are no circumstances to ascertain it.

Pliny on the contrary never mentions Muos Hormus in the passage where he details the voyage to India [38], nor does he notice it at all, except once incidentally, where he is describing the western coast of the Red Sea [39]. A proof that it was as subordinate in his time, as it had been pre-eminent before.

Every detail that is now extant, of the road from Koptus to Berenikè, is Roman; as that of Pliny, with the celebrated Itinerary in the Peutingerian tables, and the anonymous geographer of Ravenna [40]. There is no Greek account of it extant but Strabo's, and he visited the country after the Romans were in possession. His information, therefore, is Roman [41]; it specifies particulars of which other Greeks were ignorant; but it falls short of what the Romans relate themselves. He mentions only that Philadelphus opened this route with an army [42], and that as it was without water, he established posts [43], both for the convenience of those who travelled this way on business, and those who conveyed their goods on camels.

If it should be thought that this is said from any desire of amplifying the industry or penetration of the Romans, let it be observed, that Augustus reduced Egypt into a province, in the year 30 before the Christian êra, and that in less than six years

[38] Lib. vi. c. 26.

[39] Lib. vi. c. 33.

[40] Lib. ii. p. 755. in ed. Var. Pomp. Mela.

[41] Lib. xvii. p. 815.

[42] The road between Koptus and Muos Hormus he describes more particularly. A proof that it was better known. It was seven or eight days journey, formerly performed on camels in the night by observation of the stars, and carrying water with them. Latterly very deep wells had been sunk, and cisterns formed for holding water, as it sometimes, though rarely, rains in that tract. Lib. xvii. 815.

[43] Σταθμὸν or σαθμὸν· Diversoria, Caravanserais.

Petrónius had penetrated into Ethiopia, and reduced Kandákè queen of Meroè or Atbara; that Elius Gallus had been sent into Arabia with the same view of extending the knowledge and power of the Romans: and that the fleet sailed from Bereníkè instead of Muos Hormus. These transactions Strabo relates as an eye-witness, for he accompanied Elius Gallus to Syênè. And in the interval between the conquest of Egypt and the reign of Claudius, a period of 71 years, there is every reason to suppose, that a province so productive, and a commerce so advantageous, had never been neglected. But it was not till the discovery of the monsoon, which we place in his reign, that all the advantages of Bereníkè would become obvious. This would by degrees draw the concourse from Muos Hormus; it had not operated essentially in the age of Strabo; the change was beginning to be felt when the Periplûs was written; it was fully effected in the time of Pliny.

The annexed table, compared with the map, will now shew all that is necessary to be known, better than narrative; and as it is obvious that the names are Greek, we must suppose that they are such as were first given, upon opening the communication by Ptolemy, however unnoticed by the Greek writers; or that the Greeks of Egypt were employed by the Romans in forming the establishment. The mention of the Trôglodytes [44]

[44] They are described by de Castro as occupying the country from Suakem to Ras-el-Anfe, black, wanderers, and living in caverns. He calls them Badois [Badowees], and Bedoweens they are, as living in the desert; but that term is usually applied to Arabs of the desert, in opposition to those who live in towns. From Ras-el-Anfe to Suez the natives are Arabs, equally wanderers, and inhabitants of the desert, but not black. Purchas, ii. p. 1136.

agrees with their history, as it has been admirably illustrated by Bruce; they are the Shepherds so much noticed in the early history of Egypt, who every year conduct their flocks and herds from the plains of Ethiopia, across the mountains of the Red Sea, to avoid the fly, that scourge of their profession. They have done this in all ages; they do it to the present hour; their habitation is consequently temporary, and if they found caves[45] or hollows in the rocks, these they would occupy, as their name implies. Tribes of this kind also are naturally plunderers, and the guard necessary to defend the caravan in passing their country, is correspondent to the circumstances of their profession and situation. If we add to this the passage of the mountains, evidently marked in Pliny, we have all the particulars that Bruce enumerates; and an evidence of that range, which he has depicted as extending parallel to the coast, from the sea of Suez to the main of Africa. Below this range there seems to be a level towards the sea like the Tehama of Arabia, and the Ghermesir on the Gulph of Persia; and I conjecture that[46] Tisebárikè[47], the name which the Periplûs gives to the

[45] Bruce found Trôglodytes actually living in caves in Gojam; he saw these caves in Upper Egypt, and the herds passing at Sennaar.

[46] The Beja of Ebn Haukal and Al Edrissi.

[47] Teez-u-bareek is said by Capt. Franck-lin, author of a Tour in Persia, to be still a familiar phrase in the Persick for *sharp* and *thin*. It will also bear the sense of *low* and *flat*, and in that sense he supposes it applied to the low country on this coast. Mr. Jones interprets Bareek in the same manner on the coast of Persia, as Gezirat al Bareek, the Low Island. Stuckius reads, Γῆ Αραβικὴ for Τισηβαρικὴ. See Stuckius and Hudson, Geog. Min. Peripl. p. 1.

If it should be thought fanciful to seek for a derivation in Persick, and apply it to the coast of the Red Sea, I can only justify it by observing, that the Oriental languages in this part of Asia are all allied. An Arabick term in Persick, or the reverse, is no more extraordinary than the alliance of the several languages of Europe with the Latin.

tract in the neighbourhood of Bereníkè, expresses this very level, and corresponds with the Tehama of Arabia.

I have already noticed that Bereníkè lies nearly in latitude 24°, and I have now only to add, that by the concurrent testimony of the Periplûs and Strabo, the anchorage was a bay and a road, but not an harbour.

STATIONS

Between Coptus[d] and Berenike.

(N.B. The *Numbers are reconciled* by the Commentators.)

Stations.	PLINY.	Miles.		Var. lect.	PEUTINGER.	Miles.		Var. lect.	ITINERARY.	Miles.			[l] Vienna copy of Peutinger, 1753.		
I.	Hydrêum, or Hydreuma.	XXXII.	32	XII.	Phœnice.	XXII.	22	XII.	Pœníconíconon [[e] Φοινικῶνος κώμη].	XXVII.	27		Phœnice.	XLIII.	43
II.					[a] Aphrodytes [Κώμη].	XXIV.	24		Didyme [Κώμη].	XXIV.	24		Afrodites.	XII.	12
III.	In monte, a day's journey.	XXXII.	32		[b] Didymos.	XX.	20		Afrodito [i. e. Aphrodites Κώμη].	XX.	20		Didymos.	XX.	20
IV.	Hydrêum, 95 miles from Coptus.	XXXI.	31		Compasis [90 miles from Coptus].	XXV.	25	XV.	Compasi [93 miles].	XXII.	22		Compasin [95 miles].	XX.	20
V.					Dios [Κώμη].	XXII.	22		Jovis [Κώμη].	XXIII.	23		Dios.	XXII.	22
VI.	In monte, a day's journey.	XLIV.	44		Xeron [without water].	XXIV.	24		[b] Aristonis [Κώμη].	XXV.	25		Xeron.	XXIV.	24
VII.					[c] Phulakôn [Φυλάλων κώμη].	XXIV.	24		Falacro [Φυλάκων].	XXV.	25		Phulakôn.	XXIV.	24
VIII.	Hydrêum Apollinis, 184 miles from Coptus.	XLV.	45		Apollonos [Κώμη,] [184 miles from Coptus].	XXIV.	24		Apollonos [Κώμη].	XXIII.	23		Apollonos [189 miles].	XXIV.	24
IX.	In monte, a day's journey.	XXV.	25		Cabau.	XXVII.	27		Cabalsi [Cabalasi, d'Anville].	XXVII.	27		Cabau.	XXVII.	27
X.	Novum Hydrêum, 234 miles from Coptus.	XXV.	25	XX.	Kenon Nidreuma, [Καινὸν Ὕδρευμα,] [235 miles from Coptus].	XXIV.	24		Kænon Didreuma [Καινὸν Ὕδρευμα] [243 miles].	XXVII.	27		[m] Cenonnydreuma.	XXIII.	23
XI.	Troglodyticum Hydrêum, a guard.	IV.	4	VII.											
XII.	Berenikè, 258 miles from Coptus.	XX.	20		Pernicide portum [Berenícè portus].	XXII.	22		[i] Beronícèn.	XVIII.	18		Pernicide.	XXII.	22
			258				[k]258				261				261

REMARKS.

Pliny acknowledges, that though he names but nine stations, twelve days are employed in this journey; and the caravan moves chiefly in the night. Thus his three first stages are four days journey; his two next, four days; and his four last ought to be three; for Peutinger and the Itinerary make eleven days journey. And, perhaps, one ought to be added to all at Phulakôn; for the guard was possibly to exact the customs, as well as to protect.

By Pliny's account the guard was a protection against the Troglodytes on the coast. Convenience required it, perhaps, to be moved inland, in a later age.

[a] [b] Didymè precedes Aphrodites in the Itinerary. A proof that the transposition of names of stations is no unusual error even in authentic documents.

[c] The guard, according to Peutinger and the Itinerary, is on the passage of the mountains. According to Pliny, twenty miles only from Berenikè. Different causes might operate to make the change in different times. The Trôglodytes, always robbers, might change their haunts. The fort for the guard was two miles out of the road, in Pliny's account. See Strab. lib. xvi. De Icthyophagis Æthiopicis.

[d] Coptus is not on the Nile, but at a small distance, with a canal from the river, in latitude 25° 50′, twelve or fourteen miles from Καινὴ, Kœne, Ghinna, from whence the caravan passes at this day to Cosseir, by a much shorter route. This route is nearly the same as the ancient one to Muos Hormus. See Bruce, Irwin, vol. i. 234.

[e] CXXX, a corruption of CCXXX, CCXXXIII, or CCXXXIV, all which occur.

[f] Φοινίκων εἰκόνων? Query.

[h] Aristonis. An Ariston is mentioned by Diodôrus as sent to survey the Gulph of Arabia to the ocean. Diod. lib. iii. 209. ed. Wes. Salmasius. Plin. Ex. 1184.

[i] Beronícè and Pernicide, nautical or commercial corruptions of Berenikè, a city so called from Berenikè, mother of Ptolemy Philadelphus. Pliny, vi. 33.

[k] Two hundred and fifty-eight miles. D'Anville's map gives two hundred and fifty in a right line, but query, whether it is not accommodated? Berenikè is under the same parallel as Syênè, 24° 0′ 45″. Coptus lies in 25° 50′, it still exists as Keft.

[l] The miles marked on the Vienna copy do not agree with those of Moretus and Salmasius.

It is singular that this copy does not answer in the particulars, but agrees upon the whole with the Itinerary of Salmasius.

[m] Cenonnydreuma, dubious, It is written XLIII.

N. B. The whole table, except the explanations between brackets, is in the originals, as stated by Salmasius, p. 1184.

The anonymous geographer of Ravenna published in the Var. edition of Mela has these names. Lib. ii. p. 755, with variations.

FROM BERENIKE TO PTOLEMAIS THERON OR EPITHERAS.

IV. South of Bereníkè, in the tract of low country between the mountains and the sea, called Tisebarikè, is the habitation of the Trôglodytes esteemed as Icthuóphagi or Fish Eaters, who live in the clefts and caverns of the mountains, dispersed and independent. They are inclosed by more inland tribes, who are distinguished as Akridóphagi[48] and Moskhóphagi, titles which imply that their food is locusts and veal. A strange peculiarity! but as locusts are no uncommon food either on the coast of Africa or Arabia, so, perhaps, the latter distinction intimates a tribe that fed on the brinde[49], or flesh cut out of the living animal, so graphically described by Bruce[50]. These tribes are under the regular government of a king.

Below the Moskhóphagi lies the little town of Ptolemáis Thêrôn, so called from Ptolemy Philadelphus, who sent his hunters here to procure elephants for his army. Here the true shell of the land tortoise is to be procured. It is white[51], the shell itself small, and in no great quantity. The elephants also are small, like those obtained at Adooli.

[48] By a comparative view of these in Agatharchides, the site we should allot to them would be in Nubia or Sennaar, or between those places and the mountains which line the coast.

[49] Perhaps the title of Κρεωφάγοι, which Strabo confers on this or some neighbouring tribe, is equivalent. See Agatharchides, p. 40. Hudson.

[50] A passage follows which is imperfect. It seems to describe another tribe still more inland, and west of the Moskhóphagi. Compare with Agatharchides, p. 36, et seq.

[51] Λευκὴν μικροτέραν τοῖς ὀστρακοις, rendered by Hudson, Candidam minoribus testis præditam. See also Perip. p. 17. where this interpretation is confirmed.

This place has no port, and is approachable only by boats. It lies about four thousand stadia from [the harbour which is established for] the reception of such articles of commerce as are brought from beyond the straits [52], that is, it lies 4000 stadia from Bereníkè. This distance agrees with Ras Ahehas, or Ageeb, where d'Anville places it, if we reckon the stadia, as he does, ten to a mile. The cape is laid down in latitude 18° 20′, by d'Anville; 18° 31′, by de la Rochette; 18° 10′, by Bruce.

If this be true, the ancient geographers must be greatly mistaken, who place it under the same parallel with Meroè, to which they assign 16° 25′. This parallel is of great importance: it was traced by Eratósthenes, to whom we owe the doctrine of parallels. And it is assumed by Ptolemy as a distinguished line both in regard to Syênè, and to the parallel of Prasum, which was the boundary of his knowledge, and which he lays down as many degrees to the south, as Meroè is to the north of the equator [53].

If then we could fix the position of Ptolemáis by reference to the parallel of Meroè, it would give consistency to the Periplûs, in a passage where the measures are more difficult

[52] Ἄπεχον τῶν πέρας τῆς ἀναχομιδῆς, distans a principio sinus. Hudson. Which cannot be true in any sense, for whether the beginning of the gulph be taken from the straits, as Hudson doubtless means, or from the sea of Suez, this distance cannot be reconciled. We have had frequent occasion to notice the expression, Τάπερα for Τα πέρα, τὸ πέρας τῶν πέρας, &c. which intimates generally any commodities brought from beyond the straits, but in the Periplûs the commodities of the Mosyllitick coast, or kingdom of Adel, or even Arabia and India. Now the port established for the importation or reception (ἀναχομιδὴ) of these commodities can be only Bereníkè, the port immediately before mentioned.

[53] See the shoals in de Castro, Purchas, vol. ii. p. 1130.

to reconcile than in any other part of the work, for according to de la Rochette

Mineh-Beled-el-Habesh, or Bereníkè, is in lat.	23°	16′	30″
Ras Ahehaz, or Ptolemáis - -	18°	31′	0″
Masua, or Adooli - - -	15°	46′	0″

which gives the distance from Bereníkè to Ptolemáis three hundred and fifty-four Roman miles, and from Ptolemáis to Adooli two hundred and twenty-five; making a deficiency upon the measures of the Periplûs of one hundred and twenty-one out of five hundred and seventy-nine, if we reckon ten stadia to the mile Roman. The distances are, four thousand stadia from Bereníkè to Ptolemais, and three thousand from Ptolemáis to Adooli. It is this deficiency which has induced Mr. Gossellin [54] to carry the Adooli of the Periplûs to Assàb, or Saba, contrary to the opinion of all former geographers, and contrary to the local circumstances of Adooli, so strongly marked by our author.

The removal of Adooli from Masua to Saba, and of Ptolemáis from Ras Ahehas in 18° 31′ 0″ to 16° 58′ 0″, are therefore mutually connected in Mr. Gossellin's system; and as this brings Ptolemáis within thirty-two minutes of the parallel of Meroè, the whole would be reconcileable if we could make the measures of the Periplûs accord; but this is impossible [55]; and here

[54] *It was at the moment that this sheet was returned from the press for correction, that I received, by favour of Major Ousely, Mr. Gossellin's work, Recherches sur la Geographie des Anciens, published in two volumes, at Paris, in* 1798; *and of which only a very few copies had at that time reached England. However we differ on the whole of the Periplûs, I was happy to find we agreed upon the subject of the circumnavigation of Africa, and I have reconsidered this article of Ptolemáis in order to advert to the points on which we differ. In regard to the remainder of my work, it was finally arranged and settled, and I can only notice our disagreement by a note inserted on some particular occasions. I have found no reason upon the whole to abandon the ground which I had taken.*

[55] See Gossellin, Recherches, tom. ii. p. 196. et seq.

Mr. Gossellin is led into a great error, the cause of which I do not readily discover; for he says, that the Periplûs reckons from Adooli to the Straits of Bab-el-Mandeb eight hundred stadia. This is a serious mistake; for the Periplûs marks the termination of these stadia at a very deep bay where the Opsian stone is found [56], and from that bay mentions expressly the commencement of the inclination which the coast takes to the east [57], and which it continues till it joins the straits: all this is true, if Adooli is fixed at Masua, and false, if it is carried to Saba, or Assab. The Periplûs, therefore, is consistent in its description, and inconsistent in its measures; and to which of the two the preference ought to be given, will hardly be disputed by those who know the little certainty of all numbers in a Greek manuscript, and how much all printed texts are corrected by circumstances before they can be made consistent.

The real position, therefore, of Ptolemáis Thêrôn cannot be determined from these data; but if we relinquish the measures of the Periplûs, and search for it by the parallel of Meroè, we meet with many curious particulars to compensate for the digression, and furnish means for the reader to determine for himself.

Meroè, as the first parallel of Eratósthenes, became an object of the greatest importance to all the geographers and astronomers who succeeded; and if there is any one point more than another upon which we can suppose them to have searched for accuracy or acquired it, it is this. Ptolemy places it in 16° 24′ 0″; or, as it appears in his tables [58], 16° 25′ 0″; but in

[56] Peripl. p. iii.

[57] Ibid. p. v.

[58] The text stands ις. γ. κα. which the Latin reads 15° 26′ 0″; but it is 16° $\frac{1}{3}$ = 20° $\frac{1}{12}$ = 5, that is, 16° 25′ 0″. The ancient geographers thought, if they approached precision within one twelfth of a degree, or five minutes, it was sufficient; they have therefore no more minute division into seconds; but if Meroè were in latitude 16° 24′ 0″, the line would be drawn

his eighth book, he says, the longest day at Meroè is thirteen hours, which makes the latitude 16° 24′,) and the sun is vertical twice a year, when he is distant (both upon his approach to the tropic and his return,) 45° 20′ 0″, from the solsticial point. This statement of forty-five degrees must be older than Ptolemy; for Pliny mentions that the sun is vertical at Meroè forty-five *days* before, and forty-five *days* after the solstice, in which he seems to follow Philo [59], and then adds, that on these two days the sun is in the eighteenth degree of Taurus, and the fourteenth of Leo.

Now in this passage there are two errors; for first, forty-five *degrees* are not the same as forty-five *days*, as there are three hundred and sixty-five days in a year, instead of three hundred and sixty, which there ought to be, to make the two agree; and secondly, the place of the sun is mistated, both upon his approach and his return, for by a calculation of Mr. Wales's, with which he favoured me a few days before his death, it appears,

through 16° 25′ 0″. This twelfth is expressed in the different copies of Ptolemy, ιω or ια, or ιϛ; and ιϛ is supposed to be *ten* and *two*, that is, *twelve*, or one twelfth. But the commentators and editors are not agreed upon the form of writing or manner of explication, though they all interpret it one twelfth, or five minutes. See lib. i. c. 10. διὰ Μερόης ..... ιε. γ. ιϛ. the same which is written in the tables, ιε. γ. ια. rendered by Montanus, distat partibus æqualibus sedecim et tertia cum *duodecima*.

[59] See Bruce, vol. iv. p. 540. and Strabo, lib. ii. p. 77. where mention is made of Philo, who wrote an account of the navigation into Ethiopia, [by the Nile,] and who mentions the vertical sun at Meroè forty-five days before the summer solstice. He is noticed as remarking the shadows of the Gnomon, and agreeing with Eratósthenes. Some authority of this sort Pliny must have followed, as Ptolemy was posterior.

Pliny is reproached unjustly by Salmasius. Plin. Ex. 424, as saying that the sun is vertical for ninety days at Meroè. It will appear sufficiently from this statement that he makes no such assertion; and the mistake of Salmasius is reprehended by Vossius and Hardouin. See Vossius ad Melam. ed. Varior. p. 582. Hard. Plin. lib. ii. c. 75. not. 67.

" That the sun, *at this time*, is in the eighteenth degree of " Taurus, forty-four days before the solstice, which would give " 17° 13′ N. for the latitude of Meroè. And in the fourteenth " of Leo, forty-six days after the solstice, which gives 16° " 36′ N.

" Or again [60], if we take the other statement of Pliny, forty- " five days before the solstice, the sun is in the seventeenth de- " gree of Taurus, which makes the latitude 16° 57′ N. and " forty-five days after the solstice, the sun is in the thirteenth of " Leo, which gives 16° 53′ N."

Since the communication of this statement, calculated only for the place of the sun at the present day, the bishop of Rochester has added to the many former kindnesses I have experienced from his friendship, and derived from his comprehensive view of the science, the following particulars:

" Nothing is assumed by Ptolemy but what is strictly true, " that at equal distances from the solsticial point, on one side " and the other, the sun has equal declination. He gives us " in this passage two distinct principles for determining the lati- " tude of Meroé; the length of the longest day, and the dis- " tance of the sun from the solsticial point, when he culminates " in the zenith of the place. The two principles agree suffi- " ciently in the result, and the latitude which they give agrees

[60] To Mr. Wales I was known only by the courtesy of literature; but such was his love of science, that I never consulted him without receiving every assistance that it was in his power to give. I insert this as his last favour, and not without a tribute of gratitude to the memory of a man, who was as excellent in private life, as an husband and a father, as he was eminent in the science he professed. He was the friend and companion of the illustrious Cook.

" with the latitude of Meroé, as deduced from other principles,
" and stated in other parts of Ptolemy's works.

" The distance of the sun from the solsticial point, when he
" culminated in the zenith of Meroè, he tells us was 45° 20′.
" The obliquity of the ecliptick at that season of the year,
" *in the year of our Lord one hundred*, was 23° 40′ 50″; the
" sun's declination, therefore, at the distance of 45° 20′ from
" the summer solsticial point would be 16° 24′ 3″ N. and so
" much was the latitude of Meroè; for when the sun is vertical
" at any place, the declination of the sun and the latitude of
" the place must be exactly equal.

" But he tells us also, that the length of the longest day at
" Meroè was thirteen hours; and I find by calculation, that in
" this latitude of 16° 24′ 3″, the longest day must be exactly
" twelve hours fifty-nine minutes and twenty seconds, wanting
" only forty seconds of thirteen hours.

" Again, assuming thirteen hours for the length of the longest
" day, I find the latitude exactly corresponding to be 16° 34′ 27″.
" But this confirms the conclusion from the former principles,
" notwithstanding the excess of 10′ 24″; because the phêno-
" menon of a longest day of thirteen hours would certainly take
" place in a somewhat lower latitude, the day being lengthened,
" in all latitudes, several minutes, by the double effect of the
" horizontal refraction."

Having thus established the latitude of Meroè upon Ptolemy's principles, it will not be foreign to our purpose if we examine the measures in Strabo, according to the estimate of Eratósthenes; for notwithstanding all measures of this sort are precarious, still, when they come within a few minutes of

coincidence, the approximation is more satisfactory than the disagreement offensive. The account stands thus :

	Stadia.
The parallel through the Cinnamon country, which was the last parallel of the early geographers, is north of the equator - - -	8,800
The same parallel is south of Meroè - - - -	3,000
Therefore Meroè is north of the equator - - - -	11,800

Now Eratósthenes[61] reckoned seven hundred stadia to a degree; and if we divide eleven thousand eight hundred by seven hundred, it gives for the latitude of Meroè 16° 51′ 34″, differing from Ptolemy only 27′ 34″, which is an approximation the more remarkable as Ptolemy reckons five hundred stadia to a degree, and Eratósthenes seven hundred; and this circumstance may give rise to a conjecture, that Strabo had a map of Eratósthenes before him, and measured off these degrees from the parallels of that geographer, by the compasses, as we should do at the present hour[62].

But we have another coincidence between the measures of Pliny and the observations, which is equally remarkable; for Pliny has preserved the report of two Roman centurions sent into Ethiopia by Nero, who reckoned eight[63] hundred and seventy-three miles from Syênè to the confluence of the Nile with the Astáboras, and seventy from the confluence to Meroè[64].

[61] Ἐι δή τις εἰς τριακόσια ἑξήκοντα τμήματα τέμοι τὸν μέγιστον τῆς γῆς κύκλον, ἔσαι ἑπτακοσίων σταδίων ἕκαστον τῶν τμημάτων. Strab. lib. ii. p. 132.

[62] It is remarkable that this measurement by stadia, carried on to Suênè, and reckoning that place five thousand stadia north of Meroè, places it in latitude 24° 0′ 0″, which Bruce fixes by repeated observations in 24° 0′ 45″.

[63] These numbers vary in the copies to eight hundred and ninety-two, and nine hundred and twenty-eight, but with this difference we are not concerned at present. Bruce reclaims against them as carrying Meroè to Gojam; but if measured by the river, which is remarkably tortuous in this part of its course, the numbers are not too high.

[64] Pliny mentions the places which occur on each side the river in their progress to Meroè; and he adds, that these are very different from the names given by the Greeks, whom Pto-

The former number we must exhaust by supposing that the centurions followed the winding of the river, which Pliny specifies; and upon the latter, where the distance is so small, there can be no material error; seventy Roman miles then approach within five of a degree, which, as we have no ancient map to guide us, we may try by the scale of Bruce. Bruce had good instruments, and had been long practised in observation; but he was struggling for his life, and his observations must have been hasty: still as we have no better, and no traveller is soon likely to correct his errors if he is mistaken, we are entitled to use his statement till a better can be obtained. He fixes

Herbagi in	14° 30′ 0″.	
Halfaia	15° 45′ 54″.	Long. from Greenw. 32° 49′ 15″.
Gerri	16° 15′ 0″.	
Chendi	16° 38′ 35″.	Long. 33° 24′ 45″.
Fifteen miles N. of the junction at Gooz, that is, the confluence of the Nile and Astáboras	17° 57′ 22″[65].	

In consequence of these observations Bruce places Meroè at Gerri, or very near it, as corresponding best with Ptolemy. And for the same reason he might have preferred Chendi, which differs but five minutes more. A queen reigning there, and the title of Hendaque, suggested to him the name of Kandákè, and the queen of Meroè. But he had reason afterwards to conjecture that he found the remains of Meroè at a village called Gib-

lemy Philadelphus sent into the same country, and much fewer; this desolation, he observes, was not caused by the Romans, but by the previous wars between the Egyptians and Ethiopians. But as he mentions likewise, lib. vi. c. 34, 35, that the inhabitants on the Nile, from Syênè to Meroè, were not Ethiopians but Arabs, may we not conclude, that the cause of desolation was imputable to them in that age as it is at present? See Bruce, iv. 330, et seq.

[65] By repeated observations of the sun and stars, made for several succeeding days and nights. Bruce, vol. iv. p. 537.

bainy, for here he discovered ruins[66] which were evidently Egyptian or Ethiopick, and such as he had seen no where from the time he left Axum. He likewise found an island in the Nile called Kurgos by the natives: and such an island, which served for a port to Meroè, Pliny mentions by the name of Tadu[67]. These circumstances are so connected, that if it were not carrying the latitude too far north, we might prefer his conjecture to his position of Meroè. There is yet another fact still more appropriate; for if his observations are accurate, and he has placed the confluence of the two rivers exact, the distance from the confluence to Gibbainy measures upon his map as precisely fifty minutes as possible; an approach so near to the seventy Roman miles of Pliny[68], that no greater accuracy can be required. It is true that this correspondence will depend on the correctness of Bruce's observations; but if they are faulty, who shall be the traveller to correct them? It is true also, that

[66] Vol. iv. p. 538. Broken pedestals designed for the statue of the dog, pieces of obelisks, hieroglyphicks. The Arabs mentioned statues of men and animals, all of black stone.

[67] Ipsum oppidum Mèroen ab introitu insulæ,[i.e. a loco ubi confluunt Nilus et Astaboras,] abesse LXX millia passuum. Juxtaque aliam insulam Tadu dextro subeuntibus alveo [i.e. Nilo] quæ portum faceret. I. Ædificia oppidi pauca. II. Regnare fœminam Candacem quod nomen multis jam annis ad reginas transiit. Delubrum Hammonis et ibi sacrum. III. Et toto tractu sacella. Plin. lib. vi.

Besides the evidence this passage gives for an island at Meroè, it contains some features common to Ethiopia, Nubia, and Abyssinia. I. Ædificia oppidi pauca, is a circumstance as applicable to Gondar and Sennaar now, as to Meroè formerly. II. Kandákè is the name of the queen subdued by Petronius. And a Kandákè's eunuch was baptized by Philip. Bruce found the name of Hendaquè still existing. III. Toto tractu sacella. In Abyssinia the churches stood so thick, that the service could be heard from one to the other, as is noticed by the Jesuits and confirmed by Bruce. In these respects, therefore, the manners of all thèse nations appear similar. Pliny notices, in another passage, that they had forty-five kings; a strong characteristick of Abyssinia, perhaps, rather than Meroè. The temple of Hammon, Strabo informs us, had been neglected by the Romans, and the superstition despised. In his age, therefore, the O'asis itself of Hammon had fallen to decay. It might still, however, preserve its reputation among the Meroites. See Strabo, lib. xv. p. 815. Meroè is called Naulababe, the mother of ports, by the Egyptians; Neuba, by the natives; and Saba, by the Abyssinians. Marmol, vol. i. p. 45.

[68] Seventy-five to a degree.

Bruce's latitude of Gibbainy is 17° 4′ 0″, which is forty minutes to the north of Ptolemy's position, a difference, perhaps, not too great to counteract the evidence derived from the island in the Nile, if there be none in a higher part of the river to correspond. And now, if it should ever be the lot of a future traveller to tread this arid soil again, at this point his search for Meroè should commence; and if no ruins were found farther to the south, he might greet Bruce as the discoverer of Meroè; an honour which, perhaps, would be less disputed than his pretensions to the first discovery of the sources of the Nile. We ought not to be ungrateful to those who explore the desert for our information: Bruce may have offended from the warmth of his temper, he may have been misled by aspiring to knowledge and to science which he had not sufficiently examined; but his work throughout bears the internal evidence of veracity, in all instances where he was not deceived himself. His instruments were good, and so far his observations deserve respect; but they were made by a man in the moment when he was struggling for his life; still if we should be disposed to adopt his conjecture, rather than his position, from the circumstances before us, the extreme difference between him and the ancient astronomers is, as 16° 24′ 0″ to 17° 4′ 0″, a disagreement, perhaps, less allowable in this instance than most others, but still excusable, from the imperfection of all ancient observations depending on the shadow of the Gnomon, and the length of the day, and those of Ptolemy more especially.

If by stating these particulars relative to the latitude of Meroè, we could have obtained the position of Ptolemáis, we should not have to ask the reader's pardon for the digression; but all that we pretend to deduce from it, is, that Ptolemáis

cannot be fixed at Ras Ahehaz, or Ageeg, where it is placed by d'Anville and Bruce. The Shumeta, or Nubian Forest, which was the resort of the elephants, when Ptolemy built the city, and continues so to the present hour, is supposed to commence in the neighbourhood of that Cape, in latitude 18° 31′ 0″, which disagrees more than two degrees with Ptolemy, and nearly one and an half with the conjecture of Bruce. If we descend the coast a degree and a half, we arrive at a bay in the middle of the Nubian forest, the lower point of which is nearly in latitude 17° 6′ 0″; a correspondence with Bruce's conjectural parallel of Meroè, so near as to be satisfactory. On a projecting point of this sort Ptolemáis was built by Eumêdès[69], and secured from the natives by a foss carried round the angle from sea to sea; and if this situation should appear reasonable, from the deductions we have been so desirous to state, a better spot for procuring elephants cannot be chosen.

There is not a wish to conceal the uncertainty of this conclusion: the coast is little visited by any European vessels, and the charts of our best Hydrographers are therefore less to be depended on: Strabo's account agrees better with the measures of the Periplûs, and the assumption of d'Anville at Ras Ahehaz. If the distance in the Periplûs from thence to Adooli had been equally consistent, it would have been conclusive; but the whole is now determined by the parallel of Meroè, which the ancients carry through Ptolemáis, and we cannot well attribute to them an error of two degrees, on a point better established than almost any other whatsoever.

Mr. Gossellin carries it still lower, but without a cape, or any circumstance to mark the spot. And it is to be remarked, that

[69] Strabo, lib. xvi. p. 770.

he is so attached to his own estimates, for correcting the latitudes of Ptolemy and the other ancient geographers, that he pays little respect to local circumstances and the characteristick features of the coast. As I cannot dispute this matter on every point where we differ, I shall observe here, that his want of attention to the text appears no where more conspicuous than at Adooli, which the Periplûs marks with distinctions that cannot be mistaken, and which Mr. Gossellin transforms or displaces with great violence. The consequence is, that he is obliged to have two Adoolis, for which there can be no warrant either in history or geography.

With whatever errors my arrangement of the coast may be chargeable, I trust it will only affect individual positions: the general outline I am persuaded is true. I submit it, indeed, with less confidence to the public since I have perused the Researches of Mr. Gossellin. But I shall not relinquish the ground I have taken in a single instance. I trust to the investigation which I have patiently pursued under every difficulty, and I leave the issue to the judgment of those who are competent to decide.

It is necessary now to observe, that the hunting of elephants established at Ptolemáis is confirmed by Agathárchides, Diodôrus, Strabo, and other authors. The manner of hamstringing these animals was an art as perfectly understood by the ancient barbarians [70], as by Bruce's Agageers; and the relish [71] for the flesh of the elephant is an indelible characteristick of the nation. Ptolemy would have redeemed the life of the

[70] See Strabo, lib. xvi. p. 772. Diodor. lib. iii. p. 161.

[71] They buccan it, according to Bruce; that is, cut it into thin stripes and dry it in the sun.—They cut it from the living animal, according to Agathárchides and Strabo. A circumstance so peculiar, that it can belong to Abyssinia or this coast only.

animal at any price, as he wanted elephants for his army; but he met with a refusal from the native hunters, who declared they would not forego the luxury of their repast for all the wealth of Egypt[72].

ADOOLI.

V. From Ptolemáis, the next port we are conducted to by the Periplûs is Adooli, at the distance of about three thousand stadia; a space by no means agreeable to the difference between Ras Ageeg and this place[73], as little more than two degrees of latitude intervene, which produce short of an hundred and forty miles, where we ought to find three hundred. This we are informed was a regular and established port[74], and it can be no other than the celebrated harbour and bay of Masuah, so well known by the accounts of the Jesuits and of Bruce, as the only proper entrance into Abyssinia.

It is not my intention to enter farther into the detail of this country, so extraordinary and now so well known, than I am led by the classical authorities before me; but they are so numerous, and so consistent with modern accounts, that to neglect them altogether would be reprehensible.

In coming from the north, the bay of Adooli or Masuah stretches far to the south[75], and Adooli lies in the interior part

[72] See Agathárchides, p. 14. Hudson, Geog. Min.

[73] 15° 35′ 5″. Bruce, iii. p. 31.

[74] Ἐμπόριον νόμιμον, perhaps, *Justus Portus*, in contradistinction to Ptolemáis and Bereníkè, which were not ports but roads.

[75] In the Periplûs, κατ' ἀυτὸν τὸν Νότον, which of necessity we must render *secundum Notum*, towards the south, as κατὰ τὴν δεξίαν, à dextra, towards the right. I render, therefore, κατ ἀυτὸν τὸν Νότον, "as you sail or direct your course to the south." This island is so called from Diodôrus a former navigator, as we may suppose, and perhaps the Diodôrus Samius mentioned by Ptolemy, lib. i. c. 7. The same name is applied to the island of Perim, in the straits of Bab-el-Mandeb. Peripl. p. 14.

of the bay, twenty stadia, or a little more than a mile from the shore. This bay contains two islands, upon one of which the town [76] of Masuah stands, and which, from its vicinity to the main, must be that of Diodôrus, as it is called in the Periplûs; so near, says the author, that the sea was fordable [77], and of this the natives took advantage to attack the ships at their moorings. On this account the merchants had afterwards preferred the anchorage at another island, called Orînè, or the Rock, at twenty [78] miles distance from the coast [79], which answers to the Dahalac of Bruce, or one of its dependencies [80]. The two islands in the bay are called Sheik Sede and Toualhout, and for the former, which is a title manifestly derived from a Sheik's tomb, De la Rochette has found the name of Dûli [81], still bearing a resemblance to the ancient Adooli.

[76] De Castro in Purchas, ii. 1126. describes this port, with the channel, a faucon shot; in some parts not so much, with cisterns, and Arkeeko a league distant.

[77] The two islands of Sheik Sede and Toualhout are nearly one at low-water, they may have been joined formerly. Bruce, iii. p. 56.

[78] When de Castro was at Masuah in 1541, the Sheik of Dahalac was master of Masuah. His residence was generally at Dahalak, and he came only occasionally to Masuah.

[79] Two hundred stadia. Dahalac itself is about thirty miles distant, but many of the islands dependent on it are within twenty.

[80] Dahalac, according to Bruce, vol. i. p. 350. is a low flat rocky island, without water, but furnished with tanks of extraordinary magnitude and structure, for the preservation of the rain water, which falls abundantly at certain seasons. These works are now in ruins, but Bruce supposes them to be the works of the Ptolemies, in the vigour of the Egyptian trade. They may be Sabêan, for Dahal, or Del, Bruce informs us, signifies an island, in Arabick; and both this Dahalac and another Del-aqua in the bay of Zeila, may have been isles where the Sabêans procured water. I refer this to the inquiry of Orientalists. The Portuguese write Delaqua for Dahalac.

In fixing upon Dahalac for Orînè, I am guided by the two hundred stadia of the Periplûs, and supported by d'Anville. But Orînè signifies *mountainous* rather than *rocky*. Cosmas indeed says, that Orînè is ἀπὸ μιλίων δύο, but two miles distant; in this, however, he must be mistaken, or have confounded it with Sede or Toualhout, for the mention of the islands Alalaiou in the Periplûs, evidently the dependencies of Dahalac, if not Dahalac itself, leaves little doubt on the allotment of Orînè. See d'Anville, Geog. Anc. tom. iii. p. 60.

[81] Bruce met with a Mahomet *Adûlai* at Masuah; vol. iii. p. 11. which seems to imply that the memorial of Adooli is not lost.

At twenty stadia from the shore, and nearly opposite to Orînè lay Adooli, which was a village of no great extent; and three days' journey inland was Koloè [82], the first market where ivory could be procured [83]. From Koloè it was five days' journey to Axûma, where all the ivory was collected which was brought from the other side of the Nile, through the province called Kuenîon, and thence by Axûma to Adooli. These distances answer exactly to place Koloè on the mountains [84], which commence at the back of the sands; and eight days' journey to Axûma is a just allowance for about an hundred and twenty miles [85], which is its distance from the sea. The province of Kuenîon is manifestly Sirè, which receives its name from the Dog Star, under the influence of which the rains prevail that are to inundate Egypt; for Seir and Siris [86] are synonymous to Kuôn, a dog; and Kuenîon is Sirè, the province under the ascendancy of the Dog Star. Few elephants or rhinosceroses are seen on the coast or in the neighbourhood of Adooli. The mass of them which supply the trade are all killed in the interior.

The sovereign of this coast, from above Berenîkè [87] down the whole tract of Barbaria, is Zôskales: he is very superior to the

[82] In Tigrè, the province of which Sirè is a part, the market is still on the same footing. The best slaves, the purest gold, the largest teeth of ivory must all pass through the hands of the governor of this province. Bruce, iii. p. 251.

[83] The elephant's track was first seen by Bruce, on the third day, iii. p. 71.

[84] Taranta is the ridge that divides the seasons; on the east, rainy from October to April, on the west, cloudy, rainy, and cold from May to October. Bruce, iii. p. 65.

[85] Fifteen miles a-day is not slow travelling in such a country as Bruce describes. Nonnosus makes it fifteen from Adooli. See Photius, in Nonnos.

[86] Κυὼν, Canicula Seir, a dog in the language of the Trôglodytes. Bruce, i. p. 379. See Dionysius Perieg. where it appears that this account of the Dog Star is as old, at least, as Dionysius, or his commentators. Lin. 222. and Eustathius.

[87] Having above ventured to fix Berenîkè at Belled-el-Habesh, the port of Abyssinia; it is some sort of confirmation to find, that Berenîkè is actually included in the govern-

other princes in the neighbourhood. Civilized in his manners, respectable in his conduct, liberal and honourable in his dealings, and instructed in the Greek [88] language from his intercourse with the merchants who came from Egypt.

The province assigned to this sovereign corresponds precisely with the territory assigned to the Bahr-nagash, or king of the coast, under the empire of Abyssinia; and the manners attributed to him are consistent with that pre-eminence which the Abyssinians in all ages seem to have preserved over the barbarous tribes by which they are surrounded.

How it has happened that a nation neither Nigritian or Ethiopick [89] should be settled in this part of Africa, distinguished from all around them, as much formerly by their manners, as they now are by their religion, is a problem that has divided the opinion of all who have visited the country.

That they are not of Hebrew origin appears evident, notwithstanding their own pretension and the arguments of Bruce; because, in the first place, the Jews among them continued a distinct tribe; and in the next, their language is written from the left hand to the right [90]. Paolino, a missionary

ment of Zôskales, who is, to all appearance, the Bahrnagash of his age, that is, the king or governor of the coast, a title still preserved notwithstanding the Turks are masters of the ports. See Bruce, passim, Bahr = Sea, Nagash = king or governor. Whence the vulgarism of the negus for governor, the great negus, for the king of Abyssinia.

[88] The introduction of the Greek language on the coast of Abyssinia would produce a facility for Frumentius's conversion of the nation, in the year 333 of our êra; for if the Greeks continued to trade at Adooli, their language would not have been confined to the governor, but might have been extended to the merchants with whom they dealt.

The date of Frumentius we have from Bruce, vol. ii. p. 412. Oct. ed. and Ludolfus.

[89] They are called pre-eminently Ethiopians, by themselves and others; but by Ethiopick here I mean Meroite, for Meroè is the Ethiopick capital invaded by Camby'ses and the Romans, and Kandakè the Méroite is queen of Ethiopia.

[90] See Butler's Horæ Biblicæ, p. 173.

on the coast of Malabar, asserts, that though the character is different, the principle, genius, and constitution of their language is Sanskreet[91]. A queſtion well worthy of examination by those who are qualified to decide. But as far as a private judgment is of weight, I must confess, that the account of Heródotus has always appeared to me the most rational; that they are a nation of fugitives from Egypt. Strabo, in copying this opinion, has added, that the appellation[92] they give themselves is Sebrítæ[93]; a term which signifies *Advenæ*[94], the more remarkable, as Bruce observes, that the original title by which they are distinguished in their own history and language, is that of Habesh[95], or Convenæ. It is impossible to suppose, that the affinity of these two words is accidental.

The flight of these exiles is fixed by Heródotus in the reign of Psammêtichus[96], 630 years before Christ, and only 185

[91] A speculation well worthy the investigation of Lieut. Wilford, and coinciding with his system.

[92] I think I can fix the site of the Sebrítæ so positively as to identify them with the Abyssinians; the place assigned to them by Strabo is Tênesis, inland from Sabai; and Sabai is both by d'Anville and Bruce supposed to be Ras Assab, that is, Cape Assab, in lat. 13° 3′. Cape Assab assumes the same form as C. Asabo, or Moçandon, and both signify the southern cape. Moçandon is the south point in the gulph of Persia, and C. Assab S. in respect to Egypt. If this be allowed, it accords intimately with Abyssinia; because as Strabo goes inland he reverts to Meroè, which proves that his detail on the coast, and in the interior, do not quite keep pace together. A line drawn from Assab to Meroè would almoſt touch Axûma, and cut Abyssinia in the centre. I wish a reference to be made to the whole passage in Strabo, lib. xvi. p. 770. where among much obscurity, much truth may be discovered. And where I should think that Sukho is Suakem, but that Strabo says it is inland. It is in reality a town on an island in a bay, the approach to which is by a narrow channel like a river. See de la Rochette's map of the Red Sea. See also the learned Larcher's notes eighty and eighty-three, on this passage of Herodotus, with his citations from Plutarch de Exilio, p. 601, and from Diodôrus, lib. i. p. 77.

[93] He adds, that these Sebrítæ are under the government of the queen of Meroè, p. 771. which, though perhaps not true, discovers the connexion, or the similarity of government.

[94] Ptolemy has the name of Sibridæ, perhaps the same, in the Greek text Sebardæ.

[95] Bruce, vol. i. p. 379.

[96] Psammêtichus died in 616. Blair. Herodotus read his history at the Olympick Games, 445, ante Christum. I allow to the middle of Psammêtichus's reign.

years before the date of his own history; he mentions that they went to as great a distance [97] beyond Meroè [98], as Meroè is from Elephántinè, to the number of two hundred and forty thousand; and that the name by which they were distinguished as a nation was Asmack [99], or Askham; an appellation which Reiske [100] and other Orientalists have supposed to allude to Axûm, the Axûma or Axôma first mentioned expressly in the Periplûs: a supposition which there is very little reason to discredit. In addition to this testimony of Heródotus, we have a variety of evidence from other authors, that Adooli [101] was built by exiles from Egypt; and if Bruce had not had such a predilection for his Shepherds, he must have discovered, that the monuments he found at Axûma himself, the obelisk [102], the tot, the table of hieroglyphics, and the sphinxes, are perfectly Egyptian, and not pastoral, Trôglody'tic, Greek, or Arabian.

The existence of these monuments appears to me conclusive: for the Arabs were no builders; and if they had been, their superstition was perfectly distinct from that of the Abyssinians. These monuments are described at large by Bruce, and others are visible in the drawing of Adooli, left us by Cosmas. Bruce imputes the obelisk to Ptolemy Euérgetes: but that conqueror

[97] The distance assigned by Heródotus is fifty-two days to Meroè, and fifty-two beyond, which do not correspond, if the termination is at Axûma. See lib. ii. p. 116. But beyond Egypt all must be report. Aristídes, Orat. Egyp. contradicts Heródotus as to the distance, as I learn from Larcher, tom. ii. p. 213.

[98] Bruce, vol. i. p. 278. quotes Heródotus in this passage, for what he does not say.

[99] It signifies the left hand. Herod. because they had been guards on the king's left hand, perhaps the left wing of his army. See Diod.

[100] See Wesseling, not. 71. Herod. lib. ii. p. 116. who does not assent to the opinion of Reiske.

[101] Pliny, lib. vi. c. 24. Aduliton oppidum Ægyptiorum; hoc servi a dominis profugi condiderunt.

[102] All these are noticed by Bruce, and the form of the obelisk delineated: they are mentioned also by Lobo, p. 201. Fr. ed. Obelisks also and pyramids appear in the picture of Adooli, drawn by Cosmas on the spot, anno Christi 532. See Chishull Antiq. Asiaticæ, in Marmore Adulitano. See Dissertation, No. ii.

did not stay long enough in the country to erect such a column; or if he did, it is one monument only out of many, and all the rest are Egyptian. I am not ignorant that Scaliger and Ludolfus both favour the opinion of an Arabian origin, and both find Abassêni in Arabia, in the neighbourhood of the Hómerites. Ludolfus enters largely into the question, and endeavours to prove his assertion, 1. from their religion; 2. from their rites and ceremonies, as circumcision, &c.; 3. from the formation of their body; 4. from their language. But I have already shewn that their religion bears no resemblance, and their language is perfectly distinct, both in character and order of writing. It may contain many Arabic words, from their constant communication with Arabia in the earliest ages, and at the present hour; and still more from the common origin of language in Egypt, and all the adjoining countries in Asia. Circumcision is a rite common to almost all hot countries; and though we should allow the formation of their body to be similar, it is far more than counterbalanced by their habits, manners, mode of life, difference of government, and a variety of other characteristicks. Ludolfus does not agree with Bruce in the origin of Habesh: he imagines that their primary site is Geez, and their name Ageezi, which signifies *Free*, or *Franks*. But Axûma is the capital from the first mention of the country in history, and Axuma is perfectly Egyptian to this day [103].

That the Greeks from Egypt landed at Adooli, and subdued the country as far as Axûma, or farther, is evident. Ptolemy Philadelphus pushed his discoveries beyond Meroè by land, and by sea, perhaps, as far as Madagascar; and the famous

[103] See Scaliger Emendatio Temp. p. 680. Bruce, iv. 474, et seq. Ludolfus, p. 60.

inscription preserved by Cosmas Indicopleustes, is a proof that Euérgetes subdued a considerable part of Abyssinia.

This inscription is reported by Cosmas to have been engraved on a tablet and on a marble chair or throne of the conqueror; and to have been extant in his own age at Adooli, 545 years after the Christian êra. It is not without its difficulties; but Cosmas, from internal evidence, was certainly at Adooli [104] himself, and acquainted with Abyssinia. Ptolemy appears, by the inscription, to have passed the Tacazzè, which he calls the Nile, and to have penetrated into Gojam, the very province where the fountains of the Nile are found; the Agows are mentioned by name, and other appellations seem to imply the kingdoms of Tigrè [105], Bizamo, and Begemder, the country of Geez, with the mountains Samen and Lamalmon. The snow mentioned on those tracts is disclaimed by Bruce [106]. But what phênómena were natural to the country in so distant an age, it is hard to determine. He adds, that Ptolemy Euérgetes made roads or opened a communication by land between this country and Egypt, and this is the moſt remarkable particular of the whole, because this line of intercourse seems altogether obliterated, as far as may be judged by subsequent writers. For Agathárchides does not appear to be acquainted, either with the expedition of a sovereign of his own country, not fifty years

[104] Though he is called Indicopleustes, I can barely give him credit for having ever sailed on the Indian ocean. His description of Ceylon has obtained this title for him. But he says himself, he had it from Sôpater. And his account of the sea beyond the straits of Bab-el-mandeb seems as if he had not passed them, but he mentions Socotra as if he had seen it; and though we may dispute his judgment, there is no reason to suspect his veracity.

[105] See Dissertation ii.

[106] Vol. ii. p. 296. Bruce says, there is no word in the language to express snow or ice. But Horace says, Soracte stat nive candida, a circumstance which now never occurs, as *I think*, Addison says.

deceased, nor with the country, or its port Adooli [107]. His account goes no farther down the coast than Ptolemáis; and even there is not without a mixture of the marvellous.

This, however, is but a negative proof, and not sufficient to invalidate an existing inscription, if Cosmas is worthy of belief; and to his credit be it mentioned, that Bruce [108] found the name EUERGETES, still visible on a stone at Axûm, which serves as a footstool to the throne on which the kings of Abyssinia are crowned at this day.

On this evidence there is little reason to doubt the expedition of Ptolemy to this country; and however the port of Adooli might be forgotten or abandoned in the time of Agathárchides, it became again conspicuous, as the trade increased in the Red Sea; or at least as it was conducted under the protection of the Roman power in Egypt.

This intercourse will sufficiently account for the character which the Periplûs gives to Zôskales [109], the civilized state of his manners, and his knowledge of the Greek language. As it is evident that the intercourse was now reassumed, while Pliny mentions Adooli only without any notice of Axûma; and Strabo, who preceded him, makes no mention of either. The manners of these tribes he derives chiefly from Agathárchides, with the addition of some peculiarities [110]; but with the commerce of the coast, and the kingdom of Abyssinia, he was

[107] See Appendix, Adûlitic marble, No. ii.

[108] Bruce writes, "The inscription though much defaced, may safely be restored." ΠΤΟΛΕΜΑΙΟΥ ΕΥΕΡΓΕΤΟΥ ΒΑΣΙΛΕΩΣ. How much more authentic would a fac simile of the inscription have been, than the restoration? in which, by an error of the author, or the press, ΕΥΕΡΓΕΤΟΥ is read for ΕΥΕΡΓΕΤΟΥ, vol. iii. p. 132.

[109] So and Suah, according to Bruce, are roots, implying the Shepherd tribes on this coast. Thus Ma-suah is the port of the Shepherds. Could he not have found *So* in Zôskales the king of the Shepherds?

[110] Αἱ γυναῖκες Ἰουδαϊκῶς ἐκτετμημέναι, p. 771.

unacquainted, though he accompanied Elius Gallus to Syênè. That journey of Gallus was preparatory to the opening of the trade meditated by the Romans, from their first entrance into the country; the author of the Periplûs[111] writes as if it had been opened previous to his own time, and with every apparent evidence, that he had traded to Adooli himself. The assortment of his cargo is as specific as a modern invoice, allowing for the omission of gold, which, however, is sufficiently recognised in Cosmas.

EXPORTS.

Ἐλέφας.	Ivory.
Ῥινοκέρως.	Horns of the rhinoceros.

IMPORTS.

Ἱμάτια βαρβαρικὰ ἄγναφα τὰ ἐν Αἰγύπτῳ γινόμενα[112].	Cloth with the knap on, of Egyptian manufacture, for the Barbarian market.
Στολαὶ Ἀρσινοητικαὶ.	Robes made up, the manufacture of Arsínoè or Suez.
Ἄβολοι νόθοι χρωμάτινοι.	Single cloths dyed, in imitation of those of a superior quality.

[111] If the Adûlitic inscription is verified, it is the first authentic account of Abyssinia. But the knowledge of it was lost, and the Periplûs is the first work extant, which expressly notices Adooli, Axúma, and the commerce of the country.

[112] Bruce has shewn, that Barbarick, Barbarine, and Berberin, are names derived from Berber or Barbar, the native name of the coast of the Trôglodytes, Icthuóphagi, and Shepherds. It goes down the whole western coast of the Red Sea. The Egyptians hated and feared them. It was, therefore, in Egypt, a term both of dread and contumely, in which sense it passed to the Greeks, and from them to the Romans. Heródotus, lib. xi. p. 182. derives the term from the Egyptians. Βαρβάρους δὲ πάντας οἱ Αἰγύπτιοι καλέουσι τοὺς μὴ σφι ὁμογλώσσους.

Λέντια.	Linen, supposed to be from the Latin Linteum.
Δικρόσσια.	Cloth, striped, or fringed.
Λιθία Ὑαλὴ.	Glass or Chrystal.
Μυῤῥινὴ [113].	Porcelane, made at Diόspolis in Egypt, in imitation of Oriental.
Ὀρείχαλκος.	White Copper, for ornaments and for coin. Ramusio supposes it to contain gold. Gold by the ounce is still the medium of commerce, not coined but exchanged by weight, or in the parcel: there seems some allusion to this in the Periplûs, where the expression is, εἰς συγκοπὴν αντὶ νομίσματος, "cut into pieces so as to pass "for money."
Μελίεφθα χαλκὰ.	Brass, for culinary vessels, for bracelets, and ornaments of the legs, still worn in Abyssinia. See Bruce, iii. 54.
Σίδηρος.	Iron, for spear heads to hunt the elephants, &c. and for weapons of all sorts.
Πελύκια.	Hatchets.

[113] Salmasius everywhere reads Μορῤῥινὴ, which he supposes to be Oriental porcelane; if so, the manufacturers of Diόspolis are the Prototype of the European imitators. But there is much controversy upon this subject, what the Morrhina really was.

Σκέπαρνα.	Adzes.
Μάχαιραι.	Knives, daggers, or kanjars.
Ποτήρια χαλκᾶ στρογγύλα μέγάλα.	Drinking vessels of brass, large and round.
Δηνάριον.	Denarii, specie for the use of merchants resident in the country. The term proves the currency to be Roman.
Οἶνος, Λαοδικηνὸς καὶ Ιταλικὸς.	Wine, Laodicêan, i. e. Syrian, and Italian.
Ἔλαιον ὲ πολύ.	Oil, but in no great quantity.
Χρυσώματα.	Gold plate, According to the fashion of the country, and as presents, or for the use of the king.
Ἀργυρώματα.	Silver plate,
Αβόλλαι.	Watch coats, camp cloaks.
Καυνάκαι ἁπλοῖ.	Coverlids, plain.
οὐ πολλε.	of no great value.
οὐ πολλαί.	not many.
Σίδηρος Ινδικὸς.	Iron, of Indian temper or manufacture.
Ὀθόνιον Ινδικὸν τὸ πλατύτερον ἡ λεγομένη μοναχή.	Indian cottons, wide and plain, perhaps blue Surat cottons, still common in Abyssinia. Bruce, vol. iii. p. 62.
Σαγματογῆναι, or Σαγματογῖναι.	Cotton for stuffing couches, mattresses, &c.
Περιζώματα.	Sashes, still an article in great request.

Καυνάκαι.	Coverlids.
Μολόχινα.	Cotton cloth, of the colour of the mallows flower.
Σινδόνες, ὀλίγαι.	Muslins, in no great quantity.
Λάκκος, χρωμάτινος.	Gum lack, but Salmasius thinks it the colour of a cloth or cotton. Plin. Ex. 816.

These are the principal articles imported from Egypt into Adooli. The voyage may be made any time from January to September [114], but the best season is September, and this is consistent with the modern account of the winds in this sea.

Opposite to the Bay of Adooli [115] lie many low and sandy islands called Alalaiou [116], answering precisely to the appendages of Dahalac as described by Bruce, and exhibiting, seemingly, the elements of the modern name; for Dahal [117] signifies an island, in the language of Geez. Hither, according to the Periplûs, Tortoise-shell was brought by the Icthuóphagi; and it is very remarkable that Bruce should observe the beauty of the tortoise-shell here [118], to be so exquisite that it sells for its weight in gold to the Chinese. Those who know the Roman taste for ornamenting doors, tables, couches, beds, &c. with

[114] The author expresses himself both in Latin terms and Egyptian; from January to September, that is, from Tybi to Thoth; otherwise one must have supposed an error; for according to Bruce and the charts, the regular wind blows up the gulph, from the middle of March, for fifty days. This period, therefore, must be excepted. The period of the author is not correct, either in regard to its commencement or its termination.

[115] *On the right*, according to the text, but to make this true you must suppose the writer at Adooli, fronting the sea, with his face to the east.

[116] Pliny reads Aliæu, lib. vi. c. 34.

[117] De Castro, who writes Delaqua for Dahalac, says that Dellaqua signifies *ten lacks*, intimating the revenue of ten lacks of seraphins, which the customs produce; but I prefer the etymology of Bruce.

[118] Caught between Dahalac and Suakem, but he adds, on low sandy isles laid down between 18° and 20°, where, on his map, he hardly has a single isle.

this shell, will not wonder at its value in the commerce of the ancients.

Below Adooli, about eight hundred stadia, or eighty miles, there is a deep bay with a vast accumulation of sand, in which is found the Opsian stone, obtainable no where else. Of the Opsian stone an account is inserted in the catalogue. The bay itself I was unable to ascertain, when the former edition was published; but Lord Valentia, who has made a survey of the western coast of the Red Sea, on board a vessel fitted out at Bombay, has fixed upon the Bay of Sarbo, noticed by De Castro, and sufficiently marked on former charts by the island of Houakel, which lies in the centre of it. His Lordship was not able to examine the shore, on account of the shoals which render the approach dangerous; but these very shoals form the character of the bay in the Periplûs, and the distance assigned is nearly in exact correspondence; for it measures on Lord Valentia's chart from Adooli to Cape Sarbo seventy-five miles, which, allowing for the winding of the coast, may be reduced to the centre of the bay. From the same authority I am now enabled to correct[119] the position of Orînè (p. 105.); for Orînè is not one of the Dahalac islands, but an islet in the southern bosom of the Bay of Masuah. It lies actually twenty miles from the coast; it is a *rock*, as its name imports, and much elevated; it was visited by Lord Valentia, and honoured with his name; and the bay in which it lies was explored, and received the title of Annesly Bay. These particulars are so essentially correspondent with the Periplûs, that the accuracy of the author cannot be doubted; for it is now evident that the merchants

[119] I received this information from Lord Valentia, with a present of his charts, while this sheet was in the press. He went up the Red Sea with the Periplûs in his hand, and does me the honour to confirm my positions in general. Ptolemais Epithêras is placed by his Lordship near a harbour which he discovered in 18° 12′ 0″, and called Port Mornington.

from Egypt first traded at Masuah, and afterwards removed to Orînè for security; that Orînè lay opposite to Adooli, as the Periplûs describes it, and Adooli itself in the most southern[120] corner of the bay, at two miles distance from the shore.

To say we owe the investigation of these circumstances to the enterprize of an English nobleman, is an honour to the ardent spirit of our countrymen; but to find that they establish the veracity of a Greek author of eighteen hundred years standing, is a satisfaction that can only be felt, in its full extent, by an admirer of the science.

From this bay the coast of the gulph, we are informed, has a more easterly direction to the straits: a circumstance agreeing with the maps of Ptolemy, the report of Agathárchides, and the opinion of the age; and this is in some degree confirmed by Lord Valentia's survey.

The straits of Bab-el-mandeb, or Mandel, which is interpreted the gate of affliction, are in all respects worthy of consideration. They, for many ages, formed the barrier unpassed by Europeans; and from the time this barrier was forced, the knowledge of India and the countries beyond it, has been on the increase to the present hour. I speak of Europeans, because I am ready to admit an intercouse between the southern coast of Arabia and Malabar, as early as the most speculative antiquary can require. I acknowledge all that can be attributed to the voyages of Solomon's fleet, as long as they are confined to the coast of Africa or Arabia. I accede to the progress of Timósthenes down the same coast, perhaps, as far as Madagascar, notwithstanding the inconsistency of his accounts[121]. And I allow the Phênicians to have penetrated as far as Heró-

[120] Εμπόριον . . . Ἀδουλεῖ, κείμενον ἐν κόλπῳ βαθεῖ κατ' αὐτὸν τὸν νότον. Peripl. p. 2.

[121] See Pliny, lib. vi.

dotus shall please to carry them, if he will not conduct them round the Cape of Good Hope. But whatever discoveries we attribute to the Oriental navigators, there is no historical evidence remaining, that the Greeks in Egypt prosecuted these discoveries so as to make them the basis of a settled trade: they contented themselves with fetching the produce of India and Africa from Yemen; and when they did pass [121] the straits by accident or design, it was under such an impression of terror, that every thing beyond them was obscured by fable, and the very ports designated by names of ill omen.

Much that the three first Ptolemies had attempted, was neglected, or forgotten by their profligate and oppressive successors; and if the Romans had not taken possession of Egypt, a short succession of weak and ignorant princes might have reduced this commerce again into the same torpid state, it has experienced under the Mammeluks or the Turks. The dread of venturing on the ocean is expressed by many writers long after the trade to India was established; and Cosmas [122], in the reign of Justin, speaks of passing the straits as wildly as Pytheas does of the Arctic ocean.

As this species of the marvellous is a constant attendant upon ignorance [123], so is a plain narrative an evidence of truth, and

[121] It has been noticed in the first book, how far their knowledge extended in the time of Agathárchides; he says, the Arabians traded to India, and Indian ships arrived at Arabia, without mention of the Greeks. How the Greeks afterwards reached India before the discovery of Hippalus will be shewn at large in the third book.

[122] Cosmas asserts that he sailed in the Mediterranean Sea and the gulphs of Persia and Arabia; he mentions likewise his passing by Socotra, which must have been in his course from the Red Sea to the gulph of Persia: but his passage of the straits is noticed with great terror. See lib. ii. pp. 132, 133. ed. Montfaucon.

[123] Compare the account in the Periplûs no lower than Ptolemáis Thêrôn with the account of the same course in Agathárchides.

the absence of prodigies one of the strongest proofs that the author really visited the country he describes.

It is from internal evidence of this sort that I conclude the author of the Periplûs to have been himself a trader on the coast of Africa and Malabar. Concerning both he speaks with the temperate language of one who describes objects that are familiar; and the extravagance, such as he has, commences not till he passes Cape Comorin.

In running down the coast from Adooli to the straits, we have no mention of any place but the bay where the Opsian stone is found, upon an extent of near four hundred miles. The author conducts us at once to Avalítès, which lay immediately beyond the neck of the straits; and from the time we leave Ptolemáis Thêrôn most of the appellations are native, without reference to the reigning family of Egypt, or to the Greek language [124], for their origin.

The reason of this does not appear, as Strabo, Juba, Pliny, and Ptolemy, all place Arsinoè and Bereníkè Epidîres in this tract, with slight traces of other Greek names, as Eúmenes and Antíochus [125]. If they existed, it is strange that a Greek should have passed them unnoticed, neither does it appear that they are concealed under the native names which Ptolemy reports, in the same manner as our author [126].

[124] Orinè, Daphnôn, Apókopa are Greek names, but given from circumstances, and perhaps by the first navigator, as Cook named his new discoveries.

[125] Strabo, p. 771. Ptol. p. 112.

[126] Δειρή, collum, and so Βερενίκη ἐπὶ δειρῆς, written indeed Δήρη in Ptolemy, and by a strange mistake in Bruce, written and interpreted Diræ or the Furies from the Latin.

To front Page 121 Periplus Part I.

CHART of the COAST of AFRICA from the Red Sea to the Cape of Good Hope.

Ancient names in ROMAN CAPITALS
Modern names in ITALICKS large or small
Places marked with an ? dubious
Places not so marked supposed to be correct
The Coast is taken by permission from Mr. Arrowsmith's Map of Africa the names are inserted by the Author

20° 30° 40° 50°

10° 0° 10° 20° 30°

ABALITES Sin.
Ras Bel
MALAO Malaqua
MOONDUS
Isola
BARBARA
ADEL
Bonjesa
MOSYLON
MILIOTOLEMEON
DAPHNON Magnum
ELEPHAS Pro.
Beda
Ras Fel
DIOSKORA Socotra
ARÔMATA Prom:
C. Gardafui
OPÔNE Ptol.
TABAI From Zanguebar of Ptol.
C. Dafsui
OPONE Propl.
Bandel Caus?
Mts. St. Pedro
Howash Riv.
The Rivers of Adel sink into the sands in the fair season, but water is found by digging in their Channels.
PHARNOUS R.
Horro
Cobir
APOKOPA the less
ABYSSINIA
Obii River or Ouilimanie supposed to come from Nuba in Abyssinia
Cape Barros
APÔKOPA the greater
SOUTHERN HORN of Ptol.
Magadasho
LITTLE COAST
GREAT COAST
Bravia
Cafres
ESSINA of Ptol.?
NIRON?
ZANGUEBAR
Country of the Zanguis Zanguis or
SEVEN RIVERS
PURALAAN Islands of the Peripl. formed by the Mouths of the Obii
Pate. Sio. Ampeza Lamo at the Mouths of the Obii
Melinda
COAST of
NEW CANAL
Mombaza
Pemba
MENOOTHIAS of the Peripl.
Zanguebar Isl.
VB Seven rivers are mentioned on this Coast by Resendi:
1 Bouba
2 Juge
3 Mane
4 Quiami
5 Puntu di Bagona
6 Patte
7 Mandaro
but Bouba is the River of Magadasho
Monsia
RHAPTA limit of the navigation of the Periplus
Cape Delgado
Quiloa
Coavo Riv.
Arabs settled here A.D. 50
Arabs sovereigns of the Coast from Melinda to Sofala A.D. 1498
Quiloa subject to the Imam of Oman A.D. 1780
From this Lake Di Barros derives the Lumbese the Spirito Santo &c another Riv. which flows into the Atlantick. & here perhaps Ptolemy & the Arabians suppose the Lake from which the Nile issues the Source of which they place between 10° & 12° South.
Lake Maravi of Dos Santos & Barretto &c
COMORO Isles or of the Moon
Hinzuana or Johanna
Cape Ambon
Kingdom of Benomotapa or Monomotapa a powerful Nation before the Arrival of the Portuguese the supposed seat of the Gold Mines
Zembeze Riv.
Mosambique is assumed for Prasum by the Portuguese Writers
PRASUM of Ptol. by the latitude, limit of Ancient Navigation
Cape St. Andrew
MADAGASCAR Comor or Island of the Moon Arab: MENOOTHIAS of Ptol.
Quelimane Riv.
River of good signs Gama Jan. 1498
Rivers of Cuama
Ophir of Dos Santos Bruce & Le Grand
Sofala
Cape Corrientes limit of Arabian Navigation
Monsol Riv. of Spirito Santo
Bay of Laurence or Spirito Santo
Port Natal
St. Helena
Salldanha
Cape of Good Hope
Table Bay
Cape Agulhas
St. Blas
Gama Nov. 1497
Isle de la Cruz
Riv. del Infante limit of Diaz 1486

Longitude East from Greenwich

Published according to Act of Parliament May 1st 1800 by Dr. Vincent

J. Walker Sculp.

DEIRE.

VI. We are now to pass the celebrated straits of Bab-el-Mandeb, a name which is sometimes thought to be figured in the Mandaeth of Ptolemy. But Mandaeth he styles a village, and places it forty minutes north of the straits[127]. The straits he calls Deirè[128], or the Neck. The Periplûs makes no mention of Deirè, but observes that the point of contraction is close to Abalites, or the Abalitick mart; it is from this mart that the coast of Africa, falling down first to the south, and curving afterwards towards the east, is styled the Bay of Avalites by Ptolemy; but in the Periplûs, this name is confined to a bay immediately beyond the straits, which d'Anville has likewise inserted in his map, but which I did not fully understand, till I obtained Captain Cook's chart on a very large scale, and found it perfectly consistent with the Periplûs. The country from the straits to Cape Gardefan or Arômata is the kingdom of Adel; and in the modern Adel we may perhaps trace a resemblance to the ancient Abal-ites[129]. However this may be, the Portuguese, upon their first intercourse with Abyssinia, found Adel a powerful kingdom in the hands of a Mahometan race of sovereigns, the determined enemies of the Christian name, and the ravagers of Abyssinia, almost to its destruction. Against these invaders, and against the oppression of Gragni[130],

[127] Μανδαήθ κώμη Γγ it ought to be written Γ γ separate, $10\frac{1}{3}° = 10° 20'$.

[128] Δήρη ια, Dérè 11°.

[129] It appears that this, at least, is the opinion of Marmol, lib. x. p. 158. Bruce imagines Adooli to bear relation to Adel, and if the kingdom of Adel ever extended north of the straits to Adooli this would be admissible. In the Periplûs, Adooli is certainly connected, not with Adel, but with Axûma. I am not certain that Bruce knew the site of Adooli.

[130] Anno 1564.

the most ferocious and the most successful of all those Mahometan tyrants, it was, that the Abyssinians solicited the assistance of the Portuguese. Albuquerque, the brother of the illustrious general of that name, was sent to command the troops appointed to this service, in which expedition he and most of his followers perished. But the knowledge which the Portuguese obtained by that intercourse, and the wars in which they were engaged, on the coast of Arabia, with the Turks and Arabs, furnish the principal means that we have for explaining the topography of the country before us[131]. The English who still frequent the Red Sea, seldom visit the ports of Adel, as the state of the country presents little temptation to the speculations of commerce, and the coast is shoal and dangerous. But when the Portuguese first entered these seas, Adel, though a barbarous was still a powerful government[132], gold dust, ivory, myrrh, and Abyssinian slaves[133], formed the staple of its native commerce, the spices and muslins of India were still found in its ports, and notwithstanding the depredations of a savage war, caravans[134] were protected, which arrived regularly from Abyssinia, and the interior of Africa more to the southward. These circumstances will contribute more to illustrate the narrative of the Periplûs than any particulars which can be collected from ancient authors; the Portuguese found the

[131] Marmol in this part of his work copies Di Barros. Di Barros's account we have in Ramusio, these with Osorius and Faria are the authorities referred to.

[132] In the voyage of the two Arabs, published by Renaudot, the trade of Zeyla is noticed, in leopards' skins, amber, tortoise shell.

[133] Abyssinian slaves are in high estimation in Turkey, Arabia, and India; they are docile, tractable, intelligent, and endued with talents and courage, which always elevate them to favour, and often to command. When commodore Robinson surveyed the coast of Mekran in 1772, an Abyssinian was master of Scindi. How different is this singular race from the Caffrès on the coast in their neighbourhood!

[134] See Corsali in Ramusio, vol. i. p. 187, Purchas, vol. i. p. 754.

country and the commerce in the same state as the Greeks described it fifteen hundred years before; Arabs mixed with the natives, the same productions and commodities, the same intercourse with Hadramaut and the coast of Malabar. This state of things ceased, in some degree, with the arrival of the Europeans in India. But as long as the Indian trade was carried on by the Red Sea, the kingdom of Adel must have partaken in it, and its commerce would be similar to the Mosyllitick commerce of the ancients. This trade was singular; for, as far as can be collected from the authorities which remain, it appears, that in the age of Agathárchides, the Greeks of Egypt went no farther than Sabêa or Yemen, to fetch the commodities of India; that they afterwards passed the straits, and found a better market in the port of Mosullon [135], one of the harbours of Adel; that in a later period they advanced as far as Hadramaut, on the southern coast of Arabia; and that all these efforts were made for obtaining the productions of India, till at last they reached that country themselves, first by adhering to the coast, and finally by striking across the ocean in consequence of the discovery of the monsoon by Hippalus.

The coast of Adel, styled Barbaria [136], in the Periplûs, commences at the straits and terminates at Arômata; in which there can be little doubt, that the author is more accurate than Ptolemy, who extends the name of Barbaria down the coast of Ajan, the Azánia of the Periplûs. Barbaria is much more properly extended to the north than the south; for the Trôglodytes on the western coast of the Red Sea are the original Barbars or

[135] Hence many Indian commodities were called Mosyllitick in the market of Alexandria, cinnamon, spices, muslins, &c.

[136] See Herodotus, lib. xi. c. 158. Allwood, 64.

Berberines, as Bruce has admirably proved, the perpetual enemies of Egypt, whence their name became a term of odium and distinction, and in this sense passed both to the Greeks and Romans, as an appellation adopted for every thing that was foreign, or contrary and offensive to their own system of life and manners.

The coast of Barbaria is estimated at four thousand stadia [137] in the Periplûs, and is in reality four hundred and fifty geographical miles, without taking its sinuosities into the account. The straits at Bab-el-Mandeb are contracted to three-and-twenty miles, a space divided into two channels by the intervention of Perim and other isles, both of which were navigated by the ancients, according to their course down the opposite sides of the Red Sea. From the straits, the channel opens in an easterly direction to Cape Fartaque on the Arabian side, and to Arômata or Gardefan on the coast of Africa. These two promontories form the proper entrance to the straits from the Indian Ocean, and are about two hundred and fifty geographical miles asunder. The latitude [138] of Fartaque is 15° 45′ 0″, and that of Gardefan 12° 0′ 0″.

The African side of this channel, which we are now to follow, contains, according to the Periplûs, four principal marts or anchorages, called by the general name of Ta-pera [139]; and the

[137] Certainly more are intended by the Periplûs but not specified. Four thousand stadia are four hundred Roman miles.

[138] This is laid down from one of the latest charts, by Lawrie and Whittle; but Captain Bissell's journal makes Fartaque 15° 27′ 0″, and Gardefan 11° 50′ 0″.

[139] Whether we are to read Τὰ περαὰ, or Τάπαρα, is doubted by the commentators. I incline strongly to the former. The marts *beyond* the straits, in contradistinction to those within; properly τὰ πέραν, or πέρας. And this seems fully confirmed by the Periplûs itself, p. 8. where the MS. has τὰπεραν and τὰπερα, which Hudson very properly writes τὰ πέραν, or τὰ πέρα, because joined with ταῦτα and τὰ ἀυτὰ. Finally, all the ports beyond the straits, as far as the peninsula of India, are comprehended in the same general appellation.

same number occurs in the accounts of the Portuguese, but all attempts to make them correspond are in vain. D'Anville has placed them according to the measures of the Periplûs. My own wish was to have reconciled Mosullon with the modern Zeyla; first, upon account of a resemblance in the sound of the names; and secondly, because Zeyla is the principal mart of the moderns, as Mosullon [140] was of the ancients. But this endeavour is favoured neither by the measures or the circumstances described. The leading facts upon which the following arrangement is founded, will be stated in their proper place; they amount, at best, only to conjecture; but this is of less importance, as they terminate in certainty at Arômata, with such striking peculiarities as can be derived only from one who had actually visited the coast himself.

ABALITES, AUALEITES, PRONOUNCED AVALITES, WHETHER WRITTEN WITH THE B OR THE U.

VII. The first of these marts is Abalítes, a road and a bay [141], but not a port or harbour; the goods are conveyed to and from the ships in boats or rafts [142]. This place, according to the Periplûs, is close to the Straits of Bab-el-Mandeb, but Ptolemy has fixed it at the distance of fifty or sixty miles, and makes it give name to the whole Bay of Zeyla, which is styled the Bay of Mosullon by Pliny. There is a Ras Bel [143] in the charts,

[140] Marmol speaks of many ancient buildings at Zeyla, but *ancient* may refer to Arabians of a much later date than the age of the Periplus, lib. 10. p. 155, et seq. French ed.

[141] In d'Anville, Ance de Soliman.

[142] Strabo notices the transferring the cargoes at the straits from ships to boats. May it not be an error derived from the practice here mentioned?

[143] Marmol is fully convinced that Abalites is the kingdom of Adel, lib. x. p. 155, 156.

which is not more than ten geographical miles from the straits; but whether the resemblance of the names marks any relation, is justly to be doubted.

The large scale of Captain Cook's[144] chart displays this bay, with all its characters; and the shoals here, and round the whole bay of Zeila, are intimated by Heródotus[145], Strabo[146], and Al Edrissi[147]. English ships which make Cape Gardefan, run along the coast of Africa, as far as Burnt Island[148], called likewise White and Bird Island, and then stand over for the straits; so that from English navigators we have no account. The French expedition, which reached Mokha in 1721, stood over for Tajoura in this neighbourhood, but with little success. Captain Cook does not notice the Ras Bel of d'Anville, but it would form a good termination of his bay on the south.

The imports of this place are:

Ὑαλῆ λιθία σύμμικτος.	Flint glass of various sorts.
Διοσπολιτικὴ ὄμφαξ.	Dipse, Rob of grapes, called Pacmè and Doushab; it is used as a sauce or relish, and mixed with water as a drink. See Catalogue.

[144] Captain Cook of Totness commanded a sloop in the Red Sea, during the war with the Hyder Ali.

[145] Heródotus, lib. ii. p. 149. mentions Sesostris as stopped from farther progress by the shoals, after passing the straits.

[146] Strabo notices the transferring of the cargoes into boats, at the straits, rather as a general circumstance than an occurrence confined to a particular mart.

[147] Al Edrissi (p. 20.) writes, Civitas Zalegh [Zeila] sita est ad littus Maris Salsi quod jungitur Mari Rubro, & totum hujusce maris profundum ita plenum est breviis usque ad Bab-al-Mandab, ut naves magnæ nequeunt illud sulcare.

[148] Oriental Navigator, p. 150, 151.

Ἱμάτια βαρβαρικὰ σύμμικτα γεγναμμένα.	Cloths for the Barbarine coast, of various sorts, with the knap on.
Σῖτος.	Corn.
Οἶνος.	Wine.
Κασσίτερος ὀλίγος[149].	Tin in small quantity.

The exports are conveyed by the natives in small craft to Kelis [Okélis] and Moosa, on the coast of Arabia, consisting of

Ἀρώματα.	Gums, odoriferous gums.
Ἐλέφας ὀλίγος.	Ivory in small quantity.
Χελώνη.	Tortoise-shell.
Σμύρνα ἐλαχίστη διαφέρουσα δὲ τῆς ἄλλης.	Myrrh in very small quantity, but of the finest sort.

Particular attention is due to this last article, because the myrrh of Arabia is celebrated by every poet and historian, while Bruce says, it is not properly a native of that country, nor does it come to perfection there. Its origin, he affirms, is from Azam in Africa. The Periplûs is perfectly in harmony with this assertion. It mentions the myrrh of this coast as the finest of its kind; it specifies the means of conveying it to Yemen or Sabêa; there the first Greek navigators found it, and through their means it found its way into Europe, under the name of Sabêan.

[149] The tin of Britain we thus find on the coast of Africa. May we not justly suppose, that the Africans knew as little of Britain as the Britons of Africa? Yet here we see the medium through which the commodity was conveyed. How many commodities passed from regions equally distant, without any knowledge of the medium? before any knowledge existed?

One other remark of the Periplûs, that the natives of Avalites are uncivilized, and under little restraint, is worth noticing, because it is in correspondence with all the modern accounts we have, which describe the Caffres here as treacherous beyond measure, a quality, perhaps, not mitigated by the introduction of Arabs among them, or the religion of Mahomed, but aggravated by instruction, and pointed by superstition.

We have now four thousand stadia to dispose of, eight hundred to Malao, and a thousand, or two days sail each, are allotted to Moondus, to Mosullon, and Nilo-Ptolemêon. In the distribution of these d'Anville has acted wisely in considering the distances only; and though I differ from him in the following arrangement, upon the strength of one particular, which is the mention of directing the course east from Moondus, it is not without diffidence in my own assumption.

MALAO.

VIII. Eight hundred stadia, or eighty miles to Malaô, is more than sufficient to carry the position of this place to Zeyla; but the description given can hardly be consistent with the situation of that town in a bay; the anchorage [150] is marked as a road upon an open shore, with some protection from a promontory on the east. A protection on the east is more applicable to a coast that lies east and west, but an open road is hardly consistent with a bay [151] like that of Zeyla; and the security of the following anchorage seems to claim that privilege

[150] Ὅρμος ἐπίσαλος, an open road. Stuckius mentions Mergeo as its representative, from Belleforest, but without authority.

[151] The whole curvature of the S.W. angle is called the bay of Zeyla, but Zeyla itself lies in an inner bay or harbour.

for Moondus. It may be no more than a conjecture, but I persuade myself that I have discovered Malao in Purchas [152], where he names the ports coming from the east in the following order: Borbora, Ceila [Zeila], Dalaca, Malaca, and Carachin: Malaca, therefore, falls between Zeila and the straits, and is readily softened into Malaha or Malaô. The natives of Malaô are described of a more peaceable disposition than their neighbours, and the imports are such as have been already specified, with the addition of

Χιτῶνες.	Jackets.
Σάγοι Ἀρσινοητικοὶ γεγναμμένοι καὶ βεβαμμένοι.	Cloaks or blanketing, manufactured at Arsinoè or Suez, with the knap on and dyed.
Μελίεφθα ὀλίγα.	Brass or copper prepared to imitate gold.
Σίδηρος.	Iron.
Δηνάριον ἐ πολὺ χρυσῆν καὶ αργυρῆν.	Specie, gold, and silver, but in no great quantity.

The exports are

Σμύρνα.	Myrrh.
Λίβανος ὁ περατικὸς [153] ὀλίγος.	Frankincense, thus, or olibanum of Adel.

[152] See Purchas, vol. iii. p. 1025. This account seems to be from Ed. Lopez, an Italian, anno 1588, by a reference to p. 986. but it is not express.

[153] Περατικὸς must be interpreted according to its reference; if it applies to the port itself it is to be rendered *foreign, not native.* But it may be a mercantile term, by which the commodity was known at Alexandria, and then Λίβανος ὁ περατικὸς will be the *frankincense* which comes from the ports *beyond* the straits, τὰ πέραν. See Perip. p. 8.

Κασσία σκληροτέρα.	Cinnamon, cassia lignea.
Δέκα, Κιττὰ, Δάκαρ.	Cinnamon of inferior sorts.
Κάγκαμος.	The gum cancamus.
Μάκειρ.	Tila, sesamum, carried to Arabia, but see Plin. xii. 8. who calls it an aromatick from India, the bark red, the root large. The bark used in dysenteries.
Σώματα σπανίως.	Slaves, a few.

We have in this list the first mention of kassia, casia, or cinnamon. It is all of the inferior sort, such as the coast of Africa always has produced, and produces still; of little value in any market, where it comes in competition with the cinnamon of Ceylon, but grateful to the natives, readily purchased by those who cannot obtain the Oriental, and still saleable for the purposes of adulteration. How old this traffick was, is not easy to be determined, but if the ships from Egypt did not pass the straits when Agathárchides wrote, they certainly reached this coast in the time of Artemidôrus, as we learn from Strabo, who mentions the bastard cinnamon, perhaps the same as the casia lignea, or hard cinnamon; he adds also, that the cargoes were transferred from the ships to boats at the straits, a proof that this commerce was in its infancy, lib. xvi. p. 768. 774. Slaves are noticed here as an article of commerce, a circumstance common to both the coasts of Africa in all ages; in the present instance it requires no great stretch of imagination to suppose that the ancient traffick of Adel was parallel to the modern, and that the slaves procured here would consist of both Caffrès

and Abyssinians; according as the course of war or the plunder of individuals supplied the market, both for home consumption and exportation.

MOUNDUS[154], PRONOUNCED MOONDUS.

IX. The next anchorage we are directed to, is Moondus[155], at the distance of two days' sail, or a thousand stadia: D'Anville fixes it at Barbora; in which he is justified by the measures. If I neglect the measures, it is with regret, but there are circumstances mentioned, which induce me to fix Moondus at Zeyla, or at an island previous, called Londi, by de la Rochette, for Malaô and Moondus, in Ptolemy[156], differ not in longitude; and his Mosullon is a promontory which may be Barbora, but suits neither of the other two. Another consideration is, that the Periplûs, though it does not actually assert that the direction of the course to the east commences at Moondus, yet mentions it here for the first time; this is true, if Moondus be fixed at Zeyla[157], and this circumstance is the particular inducement for preferring it. The safety of the an-

[154] Ἐμπόριον ἡ Μάνδε. The true sound is Moondus, and whether the author means to give the native sound, both in this Moondus and in Palesimoondus, (Ceylon,) or whether it is a corruption of the text, may be doubted. But the usage is uniform, and therefore seems to be design rather than accident. Moondus has a more Oriental form than Mundus; and as both this place and Ceylon were possibly so named by the Arabians who traded to both, it is natural to look to the Arabick for its meaning, but it is very dubious. See Peripl. p. 6.

[155] Hartman, p. 95. supposes Moondoo to be Mandeb; but this can hardly be admitted, for Abalítes is at the straits, Malao eight hundred stadia from Abalítes, and Moondoo two days' sail from Malao.

[156] Μάλεως ἐμπόριον ο῀η. ς῀γ′. Maleôs, a mart, long. 78°. lat. 6° 30′. Μάνδε ἐμπόριον ο῀η ζ, Mundú, a mart, long. 78°. lat. 7°. The longitude continuing the same in both, proves that the course is north and south.

[157] Mercator's map in Ptolemy countenances this position.

chorage here at an island, or under the protection of an island, is marked with precision; and if there be an island at Zeyla, the whole evidence is consistent. Bruce[158] mentions the isle of Zeyla; and I find an island placed here by d'Anville. The trade of Zeyla is described by Al Edrissi as very important, and the place much frequented by merchants from the Red Sea, who consider it as the point of intercourse with Abyssinia[159]. I have no better reason for placing Moondus here, than the direction of the course to the east; but if there is no island, Londi would correspond more appropriately with the characters of the place.

The native traders, at this port, are described as an uncivilized tribe[160], and the imports and exports similar to those of the preceding ports, with the addition of mókroton, a fragrant[161] gum, the more peculiar commodity of the place.

MOSULLON, WRITTEN MOSSYLON BY PLINY, MOSYLON BY PTOLEMY.

X. At the distance of two or three days' sail, or from an hundred to an hundred and fifty miles, we are conducted to Mosullon, the grand mart of the ancients on this coast, the place which gave name to their trade and to the whole bay, in preference to Abalites, in the estimation of Pliny. The distance from Zeyla to Barbora is stated at eighty miles by Osorius[162], a circumstance not unfavourable to the two days' sail of

[158] Vol. ii. p. 142.

[159] They receive in exchange gold and slaves, the staple of Abyssinia in all ages.

[160] Σκληρότεροι, duriores.

[161] Θυμίαμα, incense.

[162] Osorius, vol. ii. p. 229. Marmol, lib. x. p. 156. makes it only eighteen leagues.

the Periplûs, which, in ordinary computation, are equal to an hundred miles, and which will bear contraction or extension according to the currents or the winds.

The character of Mosullon [163] is omitted in the Periplûs, but in Ptolemy it is twice [164] specified as a promontory, and by his latitude it is carried up a whole degree more to the north than Moondus. This projection is doubtless too extensive, but the feature is true, and suits no other point on the whole coast but Barbora, for Barbora [165] is a town upon an island [166] close to the shore, adjoining to a narrow cape of considerable extent, which is open, low, and sandy. Its want of height prevents it from affording protection against the N.E. monsoon, and this may be the reason why the Periplûs calls it a bad road. D'Anville has carried Mosullon another step towards the east, to a river where he finds the name of Soel [167], and which he supposes related to Mosullon; but the Periplûs requires more rivers than we can discover at present, and this stream may well be preserved for Nilo-Ptolemêon, an appellation in which undoubtedly a river is implied.

But there is a still greater probability implied in the very name of Barbora, which is written Borbora, Barbara, and Berbera by the moderns, retaining still the title of Barbaria, attri-

[163] It is remarkable that Juba makes the Atlantick Ocean commence at Mosullon; by which we are to understand that he considered the whole ocean which surrounded Africa as commencing at Mosullon and terminating at Mount Atlas. See Pliny, lib. vi. c. 29. Stuckius in loco. See also Gronovius's map for P. Mela.

[164] Μόσυλον ἄκρον καὶ ἐμπόριον, ἡ, i.e. 8°. p. 112. Μόσυλοι δὲ ὑπὲρ τὸ ομώνυμον AKPON. p. 113.

[165] Corsali in Ramusio, vol. i. p. 187. The Universal History mentions a river at Barbora called Howacha, vol. xii. p. 307. which Ludolfus says is the river of the capital Aucugarecèe. Marmol supposes Barbora to be Mosullon, vol. iii. p. 156.

[166] This island is called Londi in some charts; de la Rochette applies Londi to what others style Delaqua. See Univ. Hist. vol. xii. p. 307.

[167] The Universal History mentions Salim, and supposes it to be Mosullon.

buted to this coast by the ancients; and as d'Anville has observed, that the name of the province became applied to the capital in many European cities[168], so have we in this part of the east, the town of Arabia Felix, so named from the province, and the same place afterwards called Aden from the country Adanè. It is probable, therefore, that Barbaria became applicable to Barbara, the principal mart on the coast; and if this be admitted, it gives great weight to the supposition that Barbora and Mosullon[169] are the same. The Mosullitick coast and Barbarick coast were synonymous.

The imports at Mosullon are the same as have been already specified, with others peculiar to the place.

Σκέυη ἀργυρᾶ.	Silver plate, or plated.
Σίδηρα ἐλάσσω.	Iron, but in less quantity.
Λιθία.	Flint glass.

EXPORTS.

Κασσίας χρῆμα[170] πλεῖσον ὁ καὶ μειζόνων πλοίων χρήζει τὸ ἐμπόριον.	Cinnamon, of an inferior quality, and *in great quantities*; for which reason, vessels of a larger sort are wanted at this mart.
Εὐόδια.	Fragrant gums.
Ἀρώματα.	Gums or drugs.

[168] As Paris, Berry, Vannes, Triers, &c. &c.

[169] Karkuna, Carkuna of Al Edrissi. Hartman, 97.

[170] Some MSS. and the edit. Basil. read χυμα, which, according to Salmasius, is right. See Plin. Exer. p. 542. He refers it to χυδαῖον, as signifying a *great quantity*. I understand it as *common, ordinary*, of an *inferior* or *cheaper* sort. See Perip. p. 28. Ὀθονίον χυδαῖον, ordinary cottons. But the immediate addition of ὁ καὶ μειζόνων πλοίων χρήζει, implies quantity, and requires χρῆμα, rather than χῦμα.

Χελωνάρια ὀλίγα.	Tortoise-shell, of small size, and in no great quantity.
Μακρότον ἧττον τῆ Μενδιτικῆ.	Incense, in less quantities or inferior to that of Moondus.
Λίβανος ὁ περατικός [171].	Frankincense from ports farther east.
Ἐλέφας.	Ivory.
Σμύρνα σπανίως.	Myrrh, in small quantities.

The Mosullitick trade of the ancients has been noticed already; and the cinnamon mentioned in this catalogue is a sufficient proof of Arabian merchants conducting the commerce of the place. An inferior sort of cinnamon indeed is a native production [172], but the Mosullitick species is enumerated by Dioscórides as one of prime quality, and consequently not native but Oriental. The immense wealth of the Sabêans, as described by Agathárchides, proves that in his age the monopoly between India and Europe was wholly in their hands; but the other tribes of Arabia traded to India also; and the Greeks of Egypt by degrees found the way to Aden and Hadramaut in Arabia, and to Mosullon on the coast of Africa. Here they found rivals to the Sabêan market, and supplied themselves at a cheaper rate.

After another course of two days, or an hundred miles, we are conducted to Nilo-Ptolemêon. It is the last distance specified, and may be terminated either at the Soel of d'Anville,

[171] Imported either from the opposite coast of Arabia, which did always and still does produce this article, or from India, the incense of which, Niebuhr says, is better and purer than the Arabian.

[172] A specimen of African cinnamon I have seen in the curious and scientifick collection of Dr. Burgess; it is small, hard, and ligneous, with little fragrance.

or at Metè, where there is also a river; the former is preferable, because the Periplûs makes mention of two rivers at least between Nilo-Ptolemêon and Arômata; and if we assume Soel for Nilo-Ptolemêon, we can find two other rivers, one at Metè, and another near Mount Elephant, which is the Elephant River of the Periplûs, and the Rio de Santa Pedra of the Portuguese. Strabo mentions the name of Nile on this part of the coast.

NILO-PTOLEMAION.

XI. At Nilo-Ptolemêon we exhaust three thousand eight hundred out of the four thousand stadia allotted by the Periplûs to the range of marts, which are called by the common name of Ta-pera[173]; and, speaking in a round number, it may be presumed the author estimates his four thousand as terminating at this place: this gives a measure of four hundred Roman miles, where the real distance is about four hundred and fifty; a correspondence certainly sufficient where there is no better estimate of measurement than a ship's course: and, sensible as I am that the particulars of d'Anville are better adapted to the distances at the commencement, the conclusion of the course and the position of Mosullon are more consistent in the arrangement I have adopted. It is, however, at best but hypothetical, and submitted to the future determination of those who may obtain a more perfect knowledge of the coast.

[173] Τάπερα sic forsan dicta quia se mutuô tangunt et consequuntur, Stuckius. But it seems, as already noticed, τὰ πέραν. See Perip. p. 8. and Stuckius Com. p. 29.

The appellation of Nilo-Ptolemêon implies a river, and a Nilus we find noticed here by Strabo[174], from Artemidôrus; and Al Edrissi, speaking of the coast of Al Houat and Barbara, observes, that at two stations from Marca there is a river which flows in the same manner as the Nile, by which we may probably understand that it is subject to inundation like that river, in the same season, caused by solsticial rains.

But we are now arrived at a point in which there will be nothing equivocal. The promontory of Arômata, with its two inferior capes, Elephant and Tabai, will be described relatively in perfect correspondence with modern observation; and the circumstances are so peculiar, that they bespeak the testimony of one who delineated them on the spot.

MARTS, TAPATEGE. DAPHNON MIKROS. ELEPHAS, PROM. RIVERS, ELEPHAS. DAPHNONA MEGAS, OR AKANNAI.

XII. The places which occur are Tapatégè[175], the lesser Daphnôn[176], and Cape Elephant; the rivers are the Elephant,

[174] ἄλλη τὶς Νεῖλος. Strabo, p. 774. and Al Edrissi, p. 22. duabus stationibus a Marca est flumen eodem quo Nilus fluxu decurrens, secus quod seminatur millium.

[175] The literal translation of this passage runs thus: "Sailing along the coast two days "from Mosullon, you meet with Nilo-Ptole- "maion, Tapatêgê, the lesser Daphnôn, and "Cape Elephant..... then towards the "south west (εἰς λίβα,) the country has (two) "rivers, one called the Elephant River, and "the other the greater Daphnôn or Akan- "nai..... after this the coast inclining "to the south [εἰς τὸν Νότον ἤδη,] succeeds the "mart of Arômata, and its promontory, "which is the termination of the Barbarick "coast, and a projection more easterly than "Apókopa."

The text is so very corrupt in this part of the work, and the points of the compass so discordant, that all discussion is in vain, unless a manuscript of the journal should hereafter be discovered.

[176] Dioscorides. Daphnitis est Cassiæ species, sic appellatur a Daphnunte magno vel parvo ubi olim forsan provenit. Stuckius, not. p. 24. sed potius a Lauretis, p. 25.

and the greater Daphnôn, called Acannai. Neither place or distance is assigned to any of these names, but we may well allot the rivers[177] Daphnôn and Elephant to the synonymous town and cape; and these may be represented by the modern Metè and Santa Pedra. The river at Metè is described by the Portuguese as dry at certain seasons. When they landed here under Soarez[178] in great distress, they found the place deserted and no water in the river; but a woman whom they seized directed them to open pits in the channel; and by following her advice, their wants were relieved. Commodore Beaulieu[179], who anchored a few leagues north of Gardefan, received similar instructions from the natives with the same success. These circumstances are mentioned to identify the existence of rivers on this coast; and I think I can discover in the map, framed by Sanson for the French edition of Marmol, that the learned geographer paid attention to these rivers of the Periplûs.

Cape Elephant is formed by a mountain conspicuous in the Portuguese charts, under the name of Mount Felix or Felles, from the native term, Jibbel-Feel[180], literally Mount Elephant. The cape is formed by the land jutting up to the north from the direction of the coast, which is nearly east and west; and from its northernmost point the land falls off again south east[181] to Cape Gardefan, the Arômata of the ancients.

[177] The principal river of Adel is Hawash, or Howash, but it never reaches the sea. See Lobo's Voy. Diss. on the Nile, p. 213. written Aoaxes, and a lake Zoay.

[178] Marmol, lib. x. p. 200.

[179] An intelligent French commander, in 1619, whose voyage is published by Melchizedec Thevenot, and inserted in Harris. The pits Beaulieu opened were on the shore.

[180] Jibbel-Feel, Arabick, from the Heb. גֶּבֶל, Gebel.

Bruce is angry at the misnomer of Felix. Perhaps other names in the Periplûs would admit of translation, if we knew the language to refer to.

[181] Εἰς τὸν Νότον, Perip. not correct; because, according to the author's own system, Arômata is the easternmost point of Africa.

But if we have the authority of the Portuguese for a river at Metè, we learn from an English navigator the same circumstance at Jibbel-Feel. Capt. Saris [182], in 1611, stood into a bay or harbour here, which he represents as having a safe entrance for three ships a-breast, and that both wood and water were in plenty; he adds also, that several sorts of gums, *very sweet in burning*, were still purchased by the Indian ships from Cambay, who touched here for that purpose in their passage to Mocha.

The whole [183] detail of this coast, from the straits of Bab-el-Mandeb to Cape Gardefan, is principally derived from the Portuguese, who ravaged it under the command of Soarez, in the years 1516 and 1517. Corsali, whose account is preserved in Ramusio, served in the expedition. Soarez [184] had been sent against the Turkish force collected in Arabia, a service which he conducted with great ignorance and ill success. The distress of his fleet he endeavoured to relieve by plundering the coast of Adel; Zeyla, Barbora, and Metè were deserted on his approach, where little was obtained. Zeyla is described as a place well built and flourishing; but of Adel, the capital, little is to be found. That the power of the kingdom was not impaired by these ravages appears from the success of its arms

[182] Saris calls the place *Feluke*, from the Portuguese *Felix*, but as he describes it between Gardafui and Demety, [Metè] there can be no mistake. Purchas, 8th voyage of the East India Company, vol. ii. p. 340.

[183] From Gardafui to Mount Felix, 14 or 15 leagues; from Felix to Pedro, 16 or 17; from Pedro to Mette, 21; from Mette to Burnt Island, 19 or 20. Burnt Island lies three leagues from the coast.

14
16
21
19—70 leagues.

From Gardafui to Burnt Island, 210 miles, = 2100 stadia.

See Orient. Nav. p. 151. In which work the account leaves the coast of Africa just where I could have wished to have had it for a guide.

[184] This expedition is found in Osorius, di Barros, Faria, and Bruce.

against Abyssinia between this time and the year 1564, which extended almost to a conquest, with increasing hatred against every thing that bore the Christian name. Little is known of this country since the decline of the Portuguese, but that the government is Mahomedan, and the governed are removed but a few degrees from the Caffrès of the coast below.

At the marts which succeed Nilo-Ptolemêon in the Periplûs, no articles of commerce are specified, except frankincense, in great quantity and of the best quality, at Akannai [185]. This is styled *Peratick* [186], or *foreign*. But it cannot be admitted in that sense as to the commodity itself, for it is noticed expressly as a native [187] produce of the place. Still it will lead us to solve a difficulty already noticed in regard to these ports of Barbaria, called Ta-pera, which, by a slight correction [188] of the text, will signify the ports *beyond* the straits. The articles obtained here would naturally be styled Peratick, from (Pera) *beyond*, and would be known by this title in the invoices, and the market of Alexandria, in contradistinction to those obtained within the straits of Bab-el-Mandeb. The author is writing to Alexandrians, and is consequently specifying the precise ports where those commodities were obtained, which they knew by the name of Peratick.

[185] Akannai seems like a point, noticed in the Oriental Navigator, between Felix and Gardafui. P. 150.

[186] Ὁ περατικὸς.

[187] Ἀκάνναι ἐν ᾗ μονογενῶς λίβανος ὁ περατικὸς πλεῖστος καὶ διάφορὸς ΓΙΝΕΤΑΙ, "where more "especially the Peratick frankincense in "greatest quantity, and of the best quality, is "produced." All the testimonies of the ancients unite in supposing Thus or Frankincense to be the peculiar native produce of Sabêa. But Bruce and Niebuhr both agree, that it is not a native, and that the best is not produced in Arabia, but procured from Adel and India. But in Arabia the ancients first met with it, both produced there and imported. How correspondent is the evidence of Bruce and Niebuhr to that of our Alexandrian merchant!

[188] τὰ πέρα, the ports *beyond* the straits. See Perip. p. 8. τέπερεαν.

This is not the only difficulty in this part of the work before us: the quarters of the heaven are dubiously described; the sentences are ill connected or imperfect. There is at least one interpolation [189], or a corruption equivalent; and it is not known that any manuscript is in existence, which might lead to a correction of the text. Under these circumstances, indulgence is due to the attempts which have been made to preserve, in any degree, the connection and consistency of the narrative.

We now arrive at Cape Arômata or Gardefan, a place of importance in every respect; for it is the extreme point east of the continent of Africa; it forms the southern point of entrance upon the approach to the Red Sea; and it is the boundary of the monsoon from causes that are almost peculiar. Its latitude is fixed

6° 0′ 0″ N.		by Ptolemy [190].
12° 0′ 0″	-	Beaulieu.
11° 30′ 0″	-	D'Anville.
13° 30′ 0″	-	Bruce.
12° 0′ 0″	-	in Lacam's chart.
11° 50′ 0″	-	C. Bissell's journal.

[189] Καὶ ἀκρωτήριον Ἐλέφας, [ἀπὸ Ὀπώνης εἰς Νότον πρόσχωρεῖ.] The five concluding words are a manifest interpolation, because we are not yet arrived at Arômata, and Opônè is subsequent. From Arômata to Opônè the tendency of the coast is south west; and from Opônè it continues the same: but from Elephas the coast lies south east to Arômata; and Elephas is not in the least connected with Opônè. Stuckius and Hudson both complain of the corrupt state of the text. And Sigismundus Gelenius, who published the first edition at the press of Frobenius, Basil, 1532, in his Prefatory Epistle, takes no notice whence he had the manuscript. See edit. Froben. Basil. 1532.

[190] It is very remarkable that the latitude of Ptolemy should be so very erroneous on this coast, which was visited every year by merchants he must have seen at Alexandria.

Beaulieu, who anchored within four leagues of Gardefan, describes it as a very high bluff point, and as perpendicular as if it were scarped. The current comes round it out of the gulph with such violence that it is not to be stemmed without a brisk wind, and during the south west monsoon, the moment you are past the cape to the north, there is a stark calm with insufferable heat.

This current, we may conclude, is not constant, and probably depends upon the direction of the winds; for Faria mentions a ship that was separated on the coast and carried to Zeyla by the current. And Purchas[191], from Fernandes, asserts, that the current sets into the gulph during the increase of the moon, and out of it upon the wane. The current below Gardefan is noticed by the Periplûs as setting to the south, and is there, perhaps, equally subject to the change of the monsoon.

There is great diversity in writing the name of this promontory, and of its two subordinate capes. Bruce is very urgent in directing us to write it Gardefan, and not Gardefui[192], as it appears upon many of the charts; Gar-defan, he says, signifies the straits[193] of Burial, and we have had Metè or Death before, names which imply the sufferings or terrors of the navigators. The Greeks, if their appellations may be admitted as a proof, were either better omened or less alarmed.

[191] Faria, vol. i. p. 158. Purchas, vol. i. p. 751.

[192] Vol. i. p. 443.

[193] An error, perhaps, for cape, ibid.

COAST OF AZANIA, OR AJAN, FROM CAPE AROMATA TO RHAPTA [AND PRASSUM].

THE Periplûs is entitled to no small share of praise for the accuracy with which it defines the limits of the territories on the coast from the straits of Bab-el-Mandeb to Rhapta; and this is the more acceptable, as it enables us to form a judgment of the ancient divisions compared with the modern, and to obtain a considerable degree of certainty upon the whole.

Ptolemy, indeed, is not in correspondence with our author, for his bay Avalites extends to Cape Arômata, and his coast of the Trôglody'tes to Mount Elephant; but the Periplûs restrains this appellation of Trôglody'tes to the country that forms the margin of the Red Sea, and terminates at the straits; from the straits the author commences his Barbaria [194], which extends to Gardefan, corresponding naturally with the limits of the modern Adel; and at Gardefan he fixes the termination of his Barbaria. But Ptolemy, who commences his Barbaria either at Mosullon or Mount Elephant, carries the same appellation down to Rhapta, which he calls the metropolis; consequently his Azania is inland, commencing at Zingin [195], and confined within no certain limit on the south. The Periplûs, it is true, extends this title beyond the termination of the modern Ajan; for the coast of Zanguebar commences with Cape Baxos, or possibly with Melinda, while the Periplûs

[194] Barbaria is the constant term of Al-Edrissi, and the Oriental writers. Barbara is still a town on this coast, and to all appearance the Mosullon of the ancients.

[195] Ptolemy, pp. 111, 112. but lib. i. c. 17. he writes Zingin instead of the Zingisa, in his Catalogue.

carries on Azánia several degrees farther to Rhapta; by which it appears that the author was not informed of any change in the name to the utmost extent of his knowledge.

But there are natural divisions in most countries, independent of conquest and the revolutions accruing from time, difference of religion, or even the change of inhabitants. Characteristicks of this kind are in many instances indelible, and such it should seem is the nature of this coast, that though it has been possessed by natives, and invaded by the Arabs, both before Mahomed and since, and though the Portuguese afterwards subdued the Mahomedans, still the several districts are so marked, that they may be traced to the present hour; for the desert coast, the mouths of the Obii, and the tract where the maritime cities and settlements were established, are distinguishable from the dawn of history to the date of the Portuguese discoveries. The manuscript of Ressende, in the British Museum, is an important evidence in this respect, and contains a map drawn up by Bertholet, which specifies the divisions of this coast in perfect harmony with the Periplûs. It is this map which I depend upon as a clue to guide me, in preference to every other species of information I have been able to obtain; and I prefix this detail of the coast upon which I am now to enter, in hopes that it may arrest the attention of the reader, and enable him to accompany me through the whole of the ensuing discussion.

The first division of Bertholet[196] comprehends the tract from the bay succeeding Cape d'Affui to Cape Baxos, answering nearly to the Opônè and Apókopa of the Periplûs.

[196] Bertholet dates one of these maps (for there are several by him) 1635, and inscribes it, Petrus Bertholet primum cosmographicum Indianorum imperium faciebat.

Cape de Gardafui	-	Gardefan -	Arômata.
Eneeada de Belha	-	Beyla bay.	
Cape d'Affui	-	Arfur, Carfur	Tabai.

Odelerto: so in the MS. but undoubtedly Deserto, the Desert Coast.

- Enceada da Galee
- Bandel d'Agoa Bandel Caus. Delgado. Opônè.
- Enganos de Surdos.
- Cunhal.
- Os Bodios.
- Punta dos Baxos - Shoal Cape - Apókopa.
- Noti Cornu of Ptolemy.

The second division takes the general name of Magadoxo from the principal town, and answers to the Little and Great Coast of the Periplûs.

Magadoxo	Os Balaros - -	} Little Coast.
	Bandel Velho - -	
	Magadoxo - -	} Great Coast.
	Mariqua - -	
	Brava - - -	Essina of Ptolemy?

The third division is by islands and rivers all the way, corresponding exactly with the number of seven rivers, as stated by the Periplûs.

	Boubo, Rio 1[197].	- -	Serápion?
	Jugo, Rio 2.	Jubo, or Rogues R. of C. Bissell	Nicon?
	Cama.		
Coast of Zanguebar.	Tumao, Ilha.		
	Sangara, Ilha.		
	Tema, Ilha.		
Islands and Rivers	Guasta.		
	Mane, Rio 3.		
Pattè and Melinda.	Quiami, Rio 4.		
	Punta da Bagona, Rio 5.		
	Empaca.		
	Pattè, Rio 6.		
	Mandaro, Rio 7.		
	Lamo.		
	Jaque.		

Zanguebar is a native appellation given to the coast from the island of the same name. It is noticed as early as the two Arabian voyagers and Marco Polo[198]. M. Polo calls the coast the isle of Zamzibar, and gives it a circumference of two thousand miles, evidently applying it to the then undiscovered country of Lower Africa. In the two Arabians and other Oriental writers we read the same name given to this tract, with

[197] It is fruitless to allot Serapion or Nicon to any particular name; but the correspondence of seven rivers in the ancient and modern account may be considered as demonstration.

[198] The doubts which were entertained concerning the authenticity of the voyage of these Arabians, published by Renaudot, have been fully cleared up. The original has been found by M. de Guignes in the Royal Library at Paris, the existence of which had been confidently denied by Martin Folkes, and other very learned men.

the title of Zingis or Zingues applied generally to all the inhabitants of the eastern coast of Africa.

The first trace of this word is found in the Zingisa of Ptolemy[199], which he places at Mount Phalangis on the coast of Ajan. It is possible that the commencement of Zanguebar and of the Zingis was placed here by the natives in that early age, or that the influence of the title extended so far. Of this, indeed, there are no traces in the Periplûs. I suspect Menuthesias, the term used in that work, to be equivalent in its application to the extension of the modern title Zanguebar, from the island to the coast; but of this I speak not without hesitation. We are now to commence the consideration of the marts, and the first of these is Tabai.

TABAI.

XIII. Tabai is characterised as a great[200] promontory by the Periplûs, and can therefore be referred to no other point but the d'Affui of our modern charts; for below Arômata there is no other conspicuous cape upon the coast. It is written Orfui, d'Orfui, Arfur, d'Arfur, and Carfur, probably for Cape Arfur, and once Asun[201], as I suspect for Afun. The preferable reading is the d'Affui of Bertholet, or Daffui[202] of Ressende; a form not receding far from the Tabai of the Greeks, which they

[199] Zengi (with the g hard) is the Persian term for Caffres, and the distinction between them and Hhabassi, Abyssinians. India Literata, Valentin, p. 385. Kiaferah, Cofari, Caffres, are in most Oriental writers distinguished in the same manner, and considered as Zinguis, opposed to Abyssinians and Arabs. There is a history of the Zingi by Novairi an Arab, in the Royal Library at Paris. Herbelot. Ptolemy, in another passage, writes Zingin.

[200] τὸ μέγα Ἀκρωτήριον. Peripl. p. 8.

[201] Stuckius in loco.

[202] The prevailing form in modern charts is Dorfui, produced from the sound of *a* broad, as if pronounced Dauffui.

would pronounce Tavai, but whether derived or not I cannot determine. A similar relation we might fancy between Afun and Opônè, or Ophônè; but without the knowledge of a language to which we might refer it, the whole is mere conjecture. Between Gar-dafui and Dafui there is doubtless some correspondence.

At Arômata the Periplûs marks, in the most pointed manner, that the coast falls in towards the south; and in a subsequent passage, specifies its southerly and south-westerly direction to the limits of ancient discovery. But our immediate concern is with Tabai; and the position of Arômata, between Cape Elephant on the west and Tabai on the south, is as perfect a distinction as Gardafui obtains from modern geography, with all its light. The author expressly mentions, that this cape lies farther east than Apókopa, and it is in reality the most eastern point of the continent.

The trade for spices carried on at this place was in a road to the north of the cape, as we collect from a circumstance dependent on the moonsoon; for we are informed that the anchorage is totally exposed to the north, and at some seasons extremely dangerous. The prognostick of bad weather is peculiar to the spot, for the sea changes colour, and rises turbid from the bottom. Upon this appearance, the vessels which are at anchor here weigh instantly, and fly[203] to Tabai for shelter: there they find a great promontory, and under it protection from the storm. The author certainly does not advert

[203] Beaulieu ascertains Gardafui as the point that divides the monsoon. The vessels which came to this cape with the westerly monsoon, seem to have waited on the north of it, watching the change of the season, and ready to take advantage of it the first moment possible.

to these circumstances, as originating with the monsoon, however, we may afterwards discover, that this change of the seasons was not unknown to him; and yet it is the exact counterpart of Beaulieu's description, for he was exposed to the north-eastern blast on the south of Gardafui, and found a dead calm on the north. The ignorance of the author is in favour of his veracity; for had he known all the properties of the cause, the effect could not have been described in terms more appropriate: and whatever difficulties have occurred in tracing the coast of Adel, we are here amply recompensed by the locality of the three capes, and the circumstances dependent on a phênómenon which the author could not invent, and which, if he had not experienced, he could hardly have described.

The articles of commerce obtained at Arômata we may collect from its title, for Arômata is a Greek term, where we should have wished the native appellation to have been preserved; and whatever its signification may be in other writers, in the present instance certainly expresses gums, odours, spices, and fragrant productions of every kind. No particulars, however, are mentioned at this cape, but at Tabai or Daffui it is noticed, that the articles of import were the same as those brought to the coast of Barbaria or Adel, and that the commodities received in return were native produce, consisting of

Κασσία.	Cinnamon
Γίζειρ.	Cinnamon of a smaller and finer sort.
Ἀσύφη.	Cinnamon, ordinary.
Ἄρωμα.	Fragrant gums.

Μώγλα, Μοτώ.	Cinnamon of an inferior sort.
Λίβανος.	Frankincense.

With all these different species of cinnamon, can we be surprized if the ancients fixed (the regio cinnamomifera) the growth of cinnamon in the neighbourhood? for cinnamon was the first spice coveted by the ancients, and sought for with equal avidity by all the modern navigators, when they first found their way into the seas of India.

At Arômata terminates the ancient Barbaria and modern Adel, and here the coast of Azania[204] or Ajan commences. In this our author is more correct than Ptolemy, who extends the limits of Barbaria to the south. The distance of this cape from Daffui is between seventy and eighty miles, (which Ptolemy[205] has extended to an hundred and seventy,) and the intervening space is called the Bay of Belha or Beila.

	Latitude.
Ptolemy places Arômata - -	6° 0′ 0″
Zengisa and Phalangis	3° 30′ 0″
Apokopa 1, - -	3° 0′ 0″
Apokopa 2, or Southern Horn	1° 0′ 0″

N. B. There is some doubt of the text.

These latitudes are so contrary to modern experience, that they admit of no reconciliation; for Ptolemy gives the distance from Arômata to Zengísa at 170 miles —— 75 d'Anville.
from Zengísa to Apókopa 1st, 35 —— 170

[204] Though the author mentions the termination of Barbaria, he does not expressly notice the commencement of Azania; it is, however, implied.

[205] Twenty-six or twenty-seven leagues. Oriental Navigator, p. 148. Gardafui, longitude from London, 50° 0′ 0″; lat. 11° 45′ 0″, or 11° 50′ 0″.

The excess on the north of Daffui, and the deficiency on the south, induced me in the former edition to carry the Zengísa of Ptolemy to Morro Cobir. I have since found reason to think that Ptolemy has transposed Zengísa and Opônè, and am convinced by Mr. Gossellin, the Oriental Navigator, and Captain Bissell's journal, that wherever Zengísa is placed, it still bears the features of Daffui.

Ptolemy notices Mount Phalangis at Zengisa, with three heads; two of these appear in the Oriental Navigator; and Captain Bissell writes, Dorfui has three projections or capes, the largest in the centre. He mentions likewise the bay adjoining as very deep, which seems to be Opônè, and that Dorfui appears like an island, which in fact it is, as we learn from the commander of an Indian[206] vessel, shipwrecked here in 1802. The survivors reached Gardafui, after much ill treatment, in six days, and at last from Cape Elephant obtained a passage to Mokha. We have now a mart at Opônè subsequent to Tabai, and from thence a desert coast, which is a total blank to Apókopa, or Cape Baxas; that is, a space of four hundred and twenty miles, in perfect correspondence with Ressende and Bertholet. A kingdom called Adea[207] is placed here, which the authors of the Universal History treat as a fiction, and so does Ludolfus; but he adds, that the natives are called Hadiens, that is, Ajans; and hence is the corruption of Adeans and Adea.

[206] Asiatick Annual Register, 1802. Chronicle, p. 17. The ship was called Fazy Allum, the first officer Kinsay. It is a curious narrative worth consulting, and relative to a country now almost totally unfrequented.

[207] Bermudez, in Purchas, iii. 1167. mentions it as part of Abyssinia, which he extends to Melinda.

OPONE.

XIV. The next mart which occurs in the Periplûs is Opônè, four hundred stadia, or forty miles from Tabai: to reach it you must follow the shore of the Chersonese, formed by the promontory, and you have a strong current[208] setting round the coast in your favour. In the journal this is perfectly clear and intelligible; but the Opônè of Ptolemy is so different, that d'Anville has placed one Opônè previous to Tabai, and that of the Periplûs subsequent. There is in fact some great error or fluctuation in Ptolemy himself; for in his Catalogue, p. 112, Opônè is only two degrees from Arômata, and three-fourths of a degree from Panopros; while in Book I. chap. 17, Opônè is six days sail from Panon, which is the same village. Now this village is in the bay which succeeds Arômata, that is, the Bay of Beila; and if the distance had been taken even from Arômata itself, it is wonderfully in excess. But the village of Panôn, in the Catalogue, is written Panopros, which we may conjecture to be [Πανοπροσώπων,] characterising a village of the natives, who have the hideous countenance of Pan; and Panôn is the village of Pans. Some fable of this kind probably attached to this coast. The Periplûs[209] has men of gigantick stature lower down, and Ptolemy has his Anthrôpóphagi; but whatever the village may be, Ptolemy undoubtedly means to

[208] The current at Gardafui changes with the monsoon, and at Daffui likewise, as appears from C. Bissell, as likewise on the coast below. The Greeks went down the coast with the north-east monsoon, and the current complied with the prevailing wind.

[209] At Rhapta the Periplûs notices, μέγιστοι δὲ σώμασιν περὶ ταύτην τὴν χώραν ἄνθρωποι, p. 10. And Beaulieu mentions the same circumstance in this very tract of Gardefan.

place it before Tabai, for which cape he writes Zengísa, and close to it he places the mountain called Phalangis. Here, likewise, is the commencement[210] of his Azánia; and if we consider that Zengísa implies the Zinguis or Blacks, we find in this word the peculiar appellation of the Caffrè coast, and the first mention of that name which afterwards gave title to Zanguebar.

It is in Zengísa and Phalangis, fully identified with d'Affui[211] by Captain Bissell, that we obtain a fixed point of the highest importance. He mentions likewise a bay which falls into the southward of this promontory, and terminates at Cape Delgado; and at Cape Delgado commences the Bandel Caus of the Portuguese. Either of these bays would afford anchorage for the vessels from Egypt; for the description of the former, and the distance of the latter, may justify the claim of either to represent the Opônè of the ancients.

After the establishment of these correspondencies, it is with regret I am compelled to acknowledge that it is as impossible to reconcile the Zengísa of Ptolemy with the following distance to Apókopa, as with the preceding interval from Panópros; for Apókopa stands in the Catalogue only 30 minutes south of Zengísa, and is estimated at two days' sail in the 17th chapter, which cannot be consistent, for the two courses are specified as a day[212] and night each. But I suspect that there is an error of a different sort; for the Periplûs has two Apókopas, the Less and the Greater; and in the Catalogue of Ptolemy we have first

[210] The Periplûs makes the coast of Barbaria terminate at Aromata, but does not positively mention the commencement of Azania there.

[211] It is an island, according to the account of Kinsai, principal officer of the Fazi Allum, wrecked in this neighbourhood.

[212] Νυχθημέρων.

an Apókopa, which answers to the Less, and then a Southern Horn, which corresponds with the Greater: but in the 17th chapter there is no Southern Horn, and only one Apókopa. I assume (and it admits of proof) *this* Apókopa for the Southern [213] Horn of the Catalogue, and the Greater Apókopa of the Periplûs, because it is immediately followed by the Less and Greater coast; if so, a course of two days and two nights could not reach it, for the distance of the Southern Horn and the Greater Apókopa is upwards of six degrees, or 420 miles, from Daffui or Zengísa.

APOKOKA.

XV. It is no predilection in favour of my author, which induces me to prefer the order and allotment of the Periplûs to that of Ptolemy, but a conviction that the merchant actually performed the voyage himself, and that Ptolemy's information was founded on inquiry only. That it is not correct appears evidently from the discordance of his measures, compared with his latitudes; and I shall immediately shew, that by fixing Opône subsequent to Tabai, the two Apókopas correspond with the only two points noticed on this coast of desolation:

[213] The Southern Horn of Ptolemy must not be confounded with the Southern Horn of Strabo; for if his cape of that name has a precise representative, it is Arômata. They sailed, says he, 5000 stadia from Deirè [the straits] towards the cinnamon country, πέρων δὲ ταύτης ἀδένα ἀφῖχθαι φασὶ μέχρι νῦν, p. 769. and this compared with p. 774. amounts to proof. This account is from Artemidôrus, and the 5000 stadia are in correspondence with the Periplûs. Major Rennell lays great stress on making the Western Horn of Hanno an inlet, and not a promontory; but the Ἑσπέρου Κέρας of Western Africa, and the Νότου Κέρας of Strabo and Ptolemy, are all capes; and the term Κέρας seems usually applied to mark the limit of discovery in different countries and different ages.

these are Morro Cobir and Cape Baxas, or Shoal Cape[214]. I have no hesitation in assuming these two projections, for Morro[215] Cobir is described in the Oriental Navigator with the peculiar character of a *bluff*[216]; and if I had wished to render Apókopa by a nautical term in English, I could have found no expression more appropriate. Cape Baxas is described in the same work with features equally singular and consistent. "The "land," we are informed, "is *steep*, and projects more into the "sea than the rest of the coast." Thus it appears that we have the three capes or head-lands, which are the only conspicuous points on a coast four hundred miles in extent, marked with characters that are indelible; that is, Zengísa or Tabai distinguished by its *forked* head, and the two Apókopas designated as *bluff* and *steep*. My own errors, in regard to the two former, I am happy to have this opportunity of retracting; and equally happy am I to acknowledge that I am indebted to M. Gossellin for attracting my attention to the characteristick of Zengísa, which has led to the rectification of the whole.

The season for the commencement of the voyage from Egypt to all these ports beyond the straits, is in Epiphi or July. This is an early date, but not inconsistent with the monsoon; for it required thirty days to Bab-el-Mandeb, and from thence to Arômata the wind was in their favour: but they could not pass that cape till November[217] at the soonest, and therefore they

[214] In the Oriental Navigator, p. 148. it is said to have *reefs* all round it.

[215] Morro, in Portuguese, is a head or crag.

[216] Oriental Navigator, p. 148.

[217] I speak here under a supposition that the monsoon changes on this coast at the same time as on the opposite side; but I have seen a journal which mentions this change in September: it might be peculiar to the year, and not general.

must have employed the months of September and October in trading on the coast of Adel or Barbaria. This seems a space more than necessary, but produces nothing inconsistent with the nature of the monsoons. I must not, however, leave the adjustment of this coast without mentioning another circumstance, that I should have been glad to discover at Cape Baxas, which is a river [218] mentioned in the Periplûs, as a termination of the six days' course from Opônè to Apôkopa: but for the existence of such a stream I have no authority, ancient or modern; neither is it a question likely to be determined, for there is nothing here to attract a navigator, and it lies out of the track of all voyages which are usually made in these latitudes. But an interval of 350 or 360 miles between Opônè and this cape is in full correspondence with a course of six days; and a remark that the coast at this point takes a still farther inclination to the south-west, can be applied to no other promontory in this tract.

It has been necessary to take this view of the whole district now under consideration, before we entered upon the commerce with which it was connected; but of commerce there is not a single trace after leaving Opônè. At that mart, the imports are the same as those specified at the preceding anchorages, but the exports are

[218] The passage is obscure, and perhaps corrupt. I will not answer for the interpretation, but I understand it thus: "From Opônè "the coast inclines more to the south; and "the first place that occurs is Apókopa the "Less, to which succeeds the Greater Apó- "kopa, both in Azánia. You have [no "ports in this passage but] only roads and "anchorages. There is a river [at Apôkopa, "which is] at the termination of six days' "sail, and the course is now direct south-"west."

Κασσία.	Cinnamon particularized as native.
Ἄρωμα.	Fragrant gums or odours, but possibly a species of cinnamon.
Μοτώ.	Cinnamon of an inferior quality.
Δελικὰ κρέισσονα καὶ εἰς Αἴγυπτον προχωρεῖ μᾶλλον.	Slaves of a superior sort, and principally for the Egyptian market.
Χελώνη πλείστη καὶ διαφορωτέρα τῆς ἄλλης.	Tortoise-shell in great abundance, and of a superior quality.

Three sorts of cinnamon, slaves, and tortoise-shell, are articles perfectly appropriate; for all the cinnamon of the ancients was procured either in Arabia, or in this part of Africa. Slaves have been the staple of that continent in all ages, and tortoise-shell would be found here either native or imported from Socótra. The slaves of a superior quality perhaps imply, not negroes, but Abyssinians, coveted, we may suppose, in Egypt, as they now are in every part of the East, for their docility, courage, and intelligence.

The position of this port[219] we will assume as identified with Bandel Caus, by its distance of forty miles from Daffui; and at that Bandel or Bundar[220] there is a bay, which might be a sufficient cause of attraction; and in the favourable mon-

[219] The Periplûs writes, Ἐμπόριον, a mart, in contradistinction to Ὅρμος, a road or anchorage; but the roads are sometimes ἐμπόρια also.

[220] Bandel is a corrupt form of the Persick or Arabick Bundar, and possibly arising from the Portuguese. But Al Edrissi observes, that the language of the African Arabs is so debased as not to be intelligible; and as these settlements were prior to Mahommed, this might well be true.

soon, the anchorage upon the whole coast is sufficiently secure.

But at this harbour is introduced the mention of that voyage which was annually made between the coast of India and Africa, in ages previous to the appearance of the Greeks on the Indian ocean, and undoubtedly by the monsoon, long before the discovery of Hippalus. The cargoes specified are precisely such as would be still imported from Guzerat and Concan, the countries mentioned in the journal, consisting of

Σίτος.	Corn.
Ὄρυζα.	Rice.
Βούτυρον.	Butter, that is, ghee[221].
Ἔλαιον Σησάμινον.	Oil of sesamum.
Ὀθόνιον ἥ τε μοναχὴ καὶ ἡ σαγματογήνη.	Cotton in the web, and in the flock for stuffing.
Περιζώματα.	Sashes.
Μέλι τὸ καλάμινον τὸ λεγόμενον Σάκχαρι[222].	Honey from the cane called SUGAR.

"Many vessels are employed in this commerce expressly for "the importation of these articles; and others, which have a "farther destination, dispose of part of their cargoes on this "coast, and take in such commodities as they find here in "return."

This passage I have rendered with precision, as containing one of the most peculiar circumstances relative to the ancient

[221] Ghee or butter, in a half liquid state, in India, is a part of every sacrifice, and almost every meal; it is an article of export to Persia, Arabia, the coast of Africa, and the Mekran. Some traveller has observed that the taste for grease is universal, from the whale blubber of the Greenlander to the butter of the Indian.

[222] It is written Shuker, in Arabick.

commerce of these seas. It is, I apprehend, the first historical evidence of an intercourse between India and Africa, independent of the voyages to Arabia: it evidently implies the advantage taken of the monsoons, and leads us to suppose that this navigation was practised from the most remote ages that men can be imagined to have ventured on the ocean. This is the same state of a communication with India as the Portuguese found, when they arrived at Mosambique, Mombaça, and Melinda, after an interval of eighteen centuries, and which continues, in some measure, to the present day.

The same form of government was likewise found by the Portuguese as is noticed in the Periplûs; for it is stated, that both at Opônè and other marts on the coast, there was neither empire or territory under the government of a king, but that each separate city had its own sovereign [223], independent of all the others. In some few instances, indeed, the Arabs had procured an influence, and established factories which controlled the natives, much in the same manner as the Europeans have since intruded themselves in this part of the world, and in almost every other.

The construction of these settlements was upon islands [224], head-lands, or at the mouths of rivers, like the Greek colonies in Asia Minor and Pontus; fortified on the land side, and open to the sea: a manifest proof that the natives possessed no naval force, and a circumstance consistent with the character of Africans [225] in all ages. Such settlements were Mosambique,

[223] τυραννοι, princes, not by right or succession, but by the law of the strongest.

[224] So were Bombay and Goa.

[225] Singular as the fact is, I believe it admits of proof, that from the beginning of time to the present day, no native African was ever in possession of a vessel of 200 tons burden, notwithstanding this continent has a coast of nearly 12,000 miles in extent. The Carthaginians had fleets, as the states of Barbary

Quiloa, and Mombaça, all under the power of the Arabs, when first visited by Gama; and such we may conceive Rhaptum to have been, when the merchant of the Periplûs anchored in the harbour; for it is expressly mentioned as subject to the Arabs of Sabêa, and it is at this very hour possessed by the Imaum of Oman.

In fixing this Southern Horn at Cape Baxas, or the Shoal Cape of the Portuguese, I am not only directed by d'Anville[226], but confirmed by the detail of the coast. And that the Periplûs means Apókopa for a promontory is clear from a previous passage, where, when it is stated that Cape Arômata is the most eastern point of all Africa, it is peculiarly marked as more to the east than Apókopa; a certain proof that Apókopa itself also is a promontory; and if so, there is nothing within distance north or south, which can answer to it, but the Southern Horn of Ptolemy, and the Cape Baxas of the moderns. The mention of a river[227] here by the author is the only circumstance for which we find no equivalent in the modern accounts.

It is worthy of remark, that the termination of ancient knowledge on the western coast of Africa was a horn as well as on the eastern; the Western Horn[228] is a limit to the voyage of Hanno, and the geography of P. Mela, as this Southern Horn formed

have now; and Egypt had fleets on the Mediterranean, after it was subjected to the Persians and Greeks: but these are not native. Before the Persian conquest, we hardly hear of an Egyptian vessel, either for commerce or war. This consideration suggests a great degree of incredulity in regard to the conquests of Sesostris, and his achievements in the Indian ocean. Neco's fleet of discovery was Phênician.

[226] Geog. Anc. vol. iii. p. 62.

[227] The passage itself is apparently incorrect to a degree.

[228] This is sometimes also called the Southern Horn, but by Mela, Hesperi Côrnu.

the boundary of the eastern coast in the age of Strabo[229]. But discovery had advanced to Rhapta before the writing of the Periplûs, and to Prasum in the time of Ptolemy. By comparing this progress of knowledge, it seems as well ascertained that the author of the Periplûs is prior to Ptolemy, as that he is posterior to Strabo.

ΑΙΓΙΑΛΟΣ ΜΙΚΡΟΣ, ΑΙΓΙΑΛΟΣ ΜΕΓΑΣ, THE LITTLE COAST, THE GREAT COAST.

XVI. We come now to the last two divisions of this navigation. The first distinguished by a course of six days, and the latter by one of seven. Six days are attributed to a tract called the Little Coast and the Great, on which not a name occurs, neither is there an anchorage noticed, or the least trace of commerce to be found. We are not without means, however, to arrange these respective courses, as during the last division of seven days a river is specified at each anchorage, and we can discover precisely the part of the coast where these streams begin to make their appearance. The intermediate space, therefore, between Cape Baxas and this point must be attri-

[229] Τελεῦταιον ἀκρωτήριον τῆς παραλίας ταύτης τὸ Νότῳ Κέρας. Strab. lib. xvi. p. 774. "The "Southern Horn is the last promontory on "this coast." But the Southern Horn of Strabo is not the same as Ptolemy's, as he mentions it in one place as next but one to Mount Elephant, and in that case it would be Arômata; he has the names of several places from Artemidôrus, correspondent in some sort with those of the Periplûs, which prove, that if in the time of Agathárchides the vessels from Egypt went only to Ptolemáis Thêrôn, they passed the straits in the time of Artemidôrus.

Ἄλλη τὶς Νεῖλος, another Nile = Nilo-Ptolemêon.
Daphnus = Daphnona.
Libanotrophus prom. = Akannai?
Arômatôphori = Aromata?

The mention of several rivers also with Mount Elephant, &c. &c. proves the existence of a trade here, and some knowledge of the coast, but it is not distinct.

buted to the Little and the Great Coast; and the termination of it may be fixed either at Magadasho or at the modern Brava, which corresponds in some degree with the Essina of Ptolemy. Essina he places under the Line, and Brava is only one degree to the north of it; and though little is to be built upon his latitudes, it is remarkable, that his error is greatest at the commencement of the coast, and diminishes in its progress to the south. At Gardefan it is near six degrees, at Cape Baxas it is little more than two, and at Brava it may, by proportion, be diminished to one.

But there is another method of reducing our conjectures to certainty; which is, by taking a proportion of six to seven; in which case, if we fix the termination of the six days' sail at Magadasho, the conclusion of the remaining seven coincides sufficiently with Mombaça, the correspondence of which will be established by a variety of deductions, so as hardly to leave a doubt upon the arrangement.

Within the space which is allotted to this Little and Great Coast, amounting nearly to five degrees of latitude, we find only one place noticed on our modern charts, which is Magadasho[230]. I dare not say that this has any relation to the Megas[231] of the Greeks, but I recommend it to the inquiries of the Orientalists; for Ma and Maha signify *great* in the Sanskreet and Malay, and in this sense most probably enter into the composition of Madagascar in the neighbourhood. Of Magadasho[232] more will be said hereafter; but as it does not fall

[230] This name is written Macdoscho and Mocadessou by the Arabick authors, Magadoxo and Mogadoxo in the charts.

[231] Ἀιγιαλὸς ΜΕΓΑΣ. I do not suppose that the Greeks translated, but that they caught at a resemblance of sound; but it is very possible that Magadasho is of a much later date.

[232] The river at Magadasho is styled Nil-de-Mocadessou by the Arabs. Lobo. Second Dissertation, ed. Le Grande.

under the observation of the Periplûs, nor any place to represent it, we may presume that no commerce of importance detained the merchants who traded to Rhaptum, and who anchored only on this part of the coast at such roads as suited their convenience; except in the existence of this place, our modern charts are as barren as the Periplûs; even in the absence of information there is a resemblance and correspondence; and as the following division is characterized by seven rivers, which are actually found upon the coast at present, there cannot be an error of any great consequence in assuming Essina for Brava [233], and terminating the Great Coast of the Periplûs at the same place.

SERAPION, NIKON, THE SEVEN ANCHORAGES AT SEVEN RIVERS.

XVII. The division we are now to enter upon requires more consideration, as we are approaching to the limits of the journal; and more especially as I am obliged to dissent from d'Anville, which I always do with diffidence, and which I never do without compulsion, or from the imperious necessity of the circumstances described. These seven rivers, or even a greater number, cannot be a fiction. They may be seen in Bertho-

[233] Stuckius mentions Essina as the place where Ariston built a temple to Neptune, as the boundary of his discovery, when he was sent down this coast by Ptolemy, but I have not found his authority for this assertion. According to Diodôrus, (vol. i. p. 209. ed. Wes.) Ariston does not seem to have gone beyond the Bay of Zeyla or Gardefan, and even that is conjecture. If he had reached Essina, Strabo would have proceeded as far, but he stops at the Southern Horn. See lib. xvi. p. 774. Salmas. Plin. ex. p. 1183. Stuckius, p. 30.

let[234], in d'Anville's own map, and every good map of the coast; and they are the more remarkable, because from Cape Gardefan to Brava, a space of more than seven hundred and sixty miles, no river worthy of notice is found[235], as far as I can discover. Among the number of these streams must be comprehended the mouths of the Quilimancè, or Grand River of d'Anville; it falls into the sea not far from Melinda by several mouths, and in the islands formed by the division of the stream, or in their neighbourhood, we find Patè[236], Sio, Ampaça, and Lamo, obscure places, where there was some trade when the Portuguese first discovered this coast[237]. Here d'Anville places the Rhapta of Ptolemy and the Periplûs, neglecting altogether the Pyraláan islands and the Menûthias of his author[238], and not observing that Rhapta must be two days' sail to the south of the latter. My own desire is, to assume these spots surrounded by the divided streams of the river for the different roads or anchorages[239], and to make up the number of

[234] See sheet 26. MS. of Ressende, Brit. Mus. It is not pretended that the seven anchorages can be distributed to the seven rivers, but there are seven rivers or probably more, and the general picture of the tract is all that is contended for as true.

[235] There are small streams noticed at Bandel d'Agoa, north of Cape Baxas; and at Doura an obscure stream is marked, where we find Bandel veijo, and at Magadasho.

[236] "Lobo tells us, that after he left Pate, "he travelled along the coast, part by sea and "part by land, and hath given an account of "what he observed." Lobo Diss. on the Eastern Coast of Africa, p. 222. See Lobo's Voyage, p. 32. and his account of Jubo. Nine nations between Jubo and Abyssinia always at war.

[237] Geog. Ancienne, vol. iii. p. 64.

[238] I sometimes think that d'Anville in this has followed Marmol, who places Rhapta at a river near Melinda, that is, the Obii or Quilimancè, lib. x. p. 146, &c. and p. 208.

[239] I am enabled, from Ressende's MS. to give some particulars of these islands, which have escaped the research of the authors of the M. Universal History. Lamo, Ampaça, Patè and Cio, lie at the different issues of the Obii or Quilimancè, in latitude 2° 1′ 0″ south. The government of all was in the hands of the Mohamedans, but there was a Portuguese custom-house at Patè. Vasco de Gama first made the coast of Africa at Patè on his return from India. Ships were not suffered to touch here, unless the monsoon prevented them from getting to Mombaça. The government main-

the seven rivers with those separate streams which occur previously on the coast. The great [240] river which forms these islands is called the Obii [241] by the Portuguese: they sailed up it for several days, and describe it as a magnificent stream: it possibly derives its origin from the south of the Abyssinian mountains, as the Nile flows from the northern side, and perhaps gives rise to a geographical fable of Ptolemy and the early writers, who derive the source of the Nile from a lake in the latitude of sixteen degrees south [242].

The two first anchorages of the seven are called Serapiôn [243] and Nikôn [244], both in Ptolemy and the Periplûs; and it does not appear clearly from the text of the latter, whether they are to be reckoned inclusive or exclusive. I have taken them separate in the following table of the coast, and I have no doubt but that they are independent of the seven anchorages,

tained three thousand Moors as soldiers. Cio had six hundred, and was a piratical state. Ampaça had fifteen hundred, was tributary to the Portuguese, and much attached to the nation. These were divided by different branches of the river, but Lamo was more splendid than the others, had a king of its own, and fifteen hundred Moorish troops. It was tributary to Portugal, but no Portuguese resided in the city. The trade of all these places consisted in dates, Indian corn, and provisions.

[240] It is likewise marked as Quilimancè, which is said to signify a great river in the native language, in which sense it is applied to the Obii, and to the principal arm of the Zambese, in lat. 18° south.

[241] See Marmol, lib. x. p. 208. and p. 144. Barbosa, &c.

Is this the Zebea, in Lobo Diss. on the Nile, p. 214. said to come from Boxa in Narea, and to encompass Gingiro, and then to run into the sea near Monbaça?

[242] Ptolemy in 12° 30′ 0″, or 13° 0′ 0″.

[243] Whatever doubt may arise about Nikôn, from the fluctuation of orthography, there can be no hesitation in allowing that Serapion must be the name of an Egyptian, or an Egyptian Greek. Voyagers of this sort frequently gave their names to ports first visited by them, or had this honour conferred upon them by others; thus we have, in Strabo, the altars or ports of Pitholáus, Lichas, Pythángelus, Leon, and Charimótrus, on the coast between Mount Elephant and the Southern Horn. Strabo, lib. xvi. p. 769. et seq. from Artemidôrus. Cicero mentions a Serápion as a geographer who contradicted Eratósthenes. May he not have been a navigator on this coast? or might not a place have been so named in honour of him by a navigator? See Epist. ad Atticum, lib. ii. ep. 6.

[244] Ptolemy writes Niki and To-Nikè: it is only a variation of orthography.

as there is a space between Magadasho and the mouths of the Obii. I could wish to assume Brava for Serapiôn, though I have nothing to support my opinion but the mention of a promontory there by Ptolemy; and there is a small head-land at Brava, which is the Berva of Al Edrissi. But if the two anchorages are to be included in the number, two days' sail, or an hundred miles, must be deducted from the total, a difference far more excusable in an ancient journal than a modern one.

These names, evidently derived from the Greeks, afford no means of finding an equivalent for either, but in regard to the seven rivers and anchorages, our evidence is complete; for the names of these rivers inserted in Bertholet are, 1. Boubo; 2. Jugo; 3. Manè; 4. Quiami; 5. Punta da Bagona; 6. Pattè; 7. Mandaro. It is impossible not to see in this enumeration a correspondence with the Periplûs. There are no contiguous rivers in any part of the coast above, and none lower down till after we are past Cape Delgado; besides this we may add, that they are prior to Menoothias, which must be one of the Zanguebar islands, as it lies thirty miles from the coast. Between the limit, therefore, of Brava and Mombaça these rivers must be looked for; and if found, demonstration itself cannot require more. The termination of this seven days' course is fixed at the Puraláan islands, and a place strangely named the New Canal. But if we suppose these islands to be those previous to Mombaça, that is, Sio, Ampaça, Patè, and Lamo, (which are all situated at the mouths of the Obii, and insulated by the issues of that river,) their number requires five streams to enclose them, and d'Anville gives us six; to these we may add a seventh between Brava and Sio, which he styles Bubo, and thus we

have the seven which the journal requires. It may be thought presumptuous to refer their name to a Greek origin; but with a very slight alteration of the reading, the Puralian[245] islands are the islands of the *Fiery Ocean:* and a term more appropriate could hardly be adopted on a course which commences at the equator, and extends to four degrees of latitude south. Serápiôn and Nikôn have both an affinity to the Greek, and one of them is apparently represented by Brava, in latitude 1° north, immediately preceding this district of the seven rivers; Arômata, Rhapta, and Apókopa are all Greek likewise, and nothing seems more consonant to reason than for a Greek to apply the name of the Fiery Ocean to a spot which was the centre of the torrid zone, and subject to the perpendicular rays of an equinoctial sun. The first Greek that sailed in such a climate would naturally conclude that he had reached the point, where all the ancients believed that the world was rendered uninhabitable by heat; and the heat which he would actually experience, would naturally suggest the name appropriate to such a sea, and the islands which it contained. This may be imagination, but to my apprehension it decidedly presents the resemblance of truth, and I have very little hesitation in assuming this district for the course of the seven rivers, or in styling Sio, Ampaça, Patè, and Lamo, the islands of the Fiery Ocean, or the Equinoctial Islands. Ptolemy has omitted entirely the mention of these rivers and islands; a cause sufficient why Marmol, d'Anville, and Gossellin should assume Melinda, or some place near it, for Rhapta. But the authority of the Periplûs is sufficient for restoring them, and from them deducing the real limit of the navigation.

[245] Πυράλιος, *Marine Fire*, from Πῦρ, fire, ἅλιος, marine. Πῦρ ἅλιον, fire of the sea.

NEW CANAL, MOMBACA.

XVIII. The preference due to Mombaça is founded upon a variety of combinations. It has been noticed already, that by the two divisions of this tract from Apókopa [Cape Baxas] to the Puraláan islands, the proportion of six days' sail to seven would direct us to Mombaça, and it must be observed now, that two hundred miles southward would carry us to one of the three Zanguebar islands, and another hundred miles added to this would conduct us to the neighbourhood of Quiloa; these, however deficient, are the distances of the Periplûs to Rhapta, and at Quiloa or Cape Delgado must be fixed the limit of discovery in the age of the author. In treating of this limit, Quiloa will be generally assumed as more conspicuous, as it is a place of importance, and as it is the seat of an Arabian government, certainly more ancient than the Periplûs itself.

Let us now consider the title of the New Canal as applicable to Mombaça. Castaneda speaks of this city as seated on an island *hard by the firm land.* Osorius describes it as on a rock, with the sea *almost* surrounding it; and *almost* might easily be reduced to *nothing* by a canal. Faria calls it an island made by a river, which falls into the sea by two mouths. Marmol joins it to the continent by a causey at low water. But the authors[246] of the Universal History write still more pointedly: "This city was once a peninsula, but hath since been made an

[246] Castaneda, p. 22. Osorius, vol. i. p. 60. French ed. Universal History, vol. xii. p. 341. Faria, vol. i. p. 4. Marmol, lib. x. p. 150. Oct. ed.

"island, by cutting a canal through the isthmus." May we not suppose that either the natives or Arabian settlers might have adopted the same means of security, in the age of the Periplûs? and does not the name of the New Canal, in such a situation, imply fortification rather than facility of commerce? The proof of this is impossible, but every probability is in favour of the supposition, that we may place this anchorage at Mombaça.

RHAPTA.

XIX. The passage from Mombaça to Rhapta was made by two courses, consisting of a day and night each, equal to two thousand stadia, ending at an island thirty miles from the coast; and two others of a day each, amounting to one thousand. This mart obtained its name among the navigators, who were Greeks, from the word ῥάπτω, which signifies *to sew*, and was applied to this place because they found here vessels not built like their own, but small, and raised from a bottom of a single piece, by the addition of planks which were sewed together[247] [with the fibres of the cocoa], and which had their bottoms paid with some of the odoriferous resins of the country. Is it not one of the most extraordinary facts in the history of navigation, that this peculiarity should be one of the first objects which attracted the admiration of the Portuguese upon their reaching the same coast, at the distance of almost fifteen centuries? They saw them first at Mosambique, where they were called

[247] Περραιημένων ῥαπτῶν πλοιαρίων.

Almeidas[248], but the principal notice of them in most of their writers is generally stated at Quiloa, the very spot which we have supposed to receive its name from vessels of the same construction.

" The inhabitants here are men of the tallest stature and the " greatest bulk[249], and the port by prescriptive right is subject " to the sovereign of Maphartis[250], which is in Yemen, lying " between Moosa and the straits[251]; but the customs are " farmed[252] by the merchants of Moosa, and collected by " them. They have many ships themselves employed in the " trade, on board of which they have Arabian commanders " and factors[253], employing such only as have experience of the

[248] The Germs, Dows, and Trankies of the Arabs all partake of this construction; and if the Periplûs had made no mention of the Arabian influence at this port, we might have discovered it by this circumstance. Did any African ever build even a Germe, or arrive at knowledge sufficient to navigate it? The author, however, certainly intends to distinguish between the vessels used by the Arabs settled here, and those which came from Arabia; the former only are called Rhapta, the latter [ἐφολκια] trading vessels.

[249] A circumstance noticed also by Captain Beaulieu near Cape Gardefan.

[250] Νέμεται δὲ αὐτὴν κατὰ τι δίκαιον ἀρχαῖον ὑποπίπτουσαν τῇ βασιλεία τῆς πρώτης γενομένης (read λεγομένης) Αραβίας ὁ Μοφαρείτης Τύραννος.

What is meant by τῆς ΠΡΩΤΗΣ γενομένης Αραβίας, I dare not pronounce. Dodwell supposes it to relate to the Roman custom of dividing provinces according to their proximity or date of conquest, as Arabia prima, Arabia secunda: and he observes justly, that this style belongs to a later age than what I assume, i. e. the reign of Claudius.—To this I answer, that the Romans never had any province at all in this part of Arabia. They ravaged the coast, it is true, as they razed Aden, and they collected a tribute as early as the reign of Claudius, as appears by the account of Plókamus's freedman, and so did the Portuguese upon several coasts where they had not an inch of territory; but the Romans never had a province on this part of the coast of the Red Sea, or on the ocean. If they had an Arabia prima and secunda, these must have been in Petrêa, south of Jordan. It is for this reason, I think, that ΠΡΩΤΗΣ has no relation to a Latin term, but belongs to Yemen, the *first* and *principal* state of Arabia Felix, the king of which was Charibáel, with whom the Romans always treated, and Maphar or Mopharîtes appears to be a territory under that division. See Periplûs, p. 13.

[251] It is a tract in Arabia mentioned next to Moosa, the capital of which is Sauè.

[252] Ὑπόφορον αὐτὴν ἔχουσι.

[253] Χριακοῖς.

" country, or have contracted marriages with the natives, who " understand the language, and have experience of the navi- " gation." This mixture of Arabs, Mestizes, and Negroes presents a picture perfectly similar to that seen by the Portuguese upon their first arrival; and except that another race of Arabs, of another religion, had succeeded in the place of their more barbarous ancestors, and had carried their commerce to a greater extent, the resemblance is complete.

One circumstance, however, is worthy of still farther notice, which is, that the influence of the Arabs was divided between two separate powers; for Maphartis was subject to Kholêbus, and Moosa to Kharibáel. This division of interests is consistent with the manners of the Arabs. At Judda, the customs were divided between the Soldan of Egypt and the Imaum, in the sixteenth century; and at Adhab, on the African side of the Red Sea, where the pilgrims embarked for Judda, the revenue was shared between the King of Bega and the Soldan[254] of Egypt. Something similar is mentioned in the Periplûs at Socotra. So constant are Arabian manners in all ages, and so easy is it for an Arab to yield to necessity, or fly to resistance, as it suits his convenience or emolument.

The Imports at Rhapta are,

Λόγχη προηγεμένως ἡ τοπικῶς κατασκευαζομένη ἐν Μόσᾳ.	Javelins, more especially such as are actually the manufacture of Moosa.
Πελύκια.	Hatchets or bills.

[254] Al Edrissi, p. 44.

Μαχάιρια.	Knives[255].
Ὀπήτια.	Awls.
Λιθίας Ὑαλῆς πλέιονα γένη.	Crown glass of various sorts.

And to these commodities we must by no means omit to add a store of corn and wine carried out by the traders, not for sale, but for the purpose of entertainment, and ingratiating themselves with the natives. This is so truly consonant with the modern system of carrying out spirits to America, and the coast of Africa, that the resemblance should by no means be suppressed.

The Exports are,

Ἐλέφας πλεῖστος, ἧσσον δὲ τῦ Αδουλιτικῦ.	Ivory in great quantity, but of inferior quality to that obtained at Adooli from Abyssinia.
Ῥινόκερως.	Rhinoceros, the horn.
Χελώνη διάφορος μετὰ τὴν Ινδικήν.	Tortoise-shell of a good sort, but inferior to that of India.
Νάυπλιος ὀλίγος.	A shell[256] for ornament; but the term is highly dubious. See Catalogue.

The articles of import here are nearly the same as an African invoice at the present moment; and in the exports it is some

[255] Knives, called jambea or canjars, are still a great article of trade in Africa, Arabia, and India; they are carried in the girdle, and are ornamented with silver, gold, or jewels, according to the ability of the possessor. See Niebuhr, Fr. ed. ii. 127.

[256] Cowries are an article of commerce on this coast; but nothing appears to justify such an interpretation.

degree of disappointment not to find gold. For as the fleets of Solomon are said to have obtained gold on this coast, as well as the Arabs of a later age, and the Portuguese, we naturally look for it in a commerce which is intermediate; and the nearer we approach to Sofala the more reason there is to expect it. Our present object, however, is not the trade but the geography.

It has been already stated [257], that the measures of the Periplûs accord with the degrees of latitude between Gardafui and Quiloa within five miles [258], a disagreement upon twenty degrees wholly insignificant. But if it should be thought that the measure by a day's course is too vague to support the assumption of Quiloa for Rhapta, it may be answered, that in a voyage performed both ways, with the different monsoons, and repeated yearly, this estimate may be reduced almost to a certainty; far more so at least than any courses the Greeks could estimate in the Mediterranean. Ptolemy's objection to this will be considered in its proper place: for the present it is sufficient to say, that the agreement of the measures is a general cause for presuming that Rhapta is Quiloa, strengthened more especially by the peculiarities of the coast coinciding with the detail of the journal, and all pointing to the same spot. The seven days' courses terminating each at a river, cannot be applicable to any tract but the coast of Melinda, comprehending the mouths of the Obii, and the termination of these at Mombáça, which is assumed either as one of the Pyraláan islands, or as a place strangely marked by the title of the New Canal.

[257] See Table.

[258] It is not meant to build on this approximation: the charts differ considerably, but if it can be reconciled within a degree, or even two, the correspondence is extraordinary.

From this anchorage we are now to particularize the passage to Rhapta. The first step is a course of two thousand [259] stadia to an island which lies three hundred stadia, or thirty miles, from the continent; and for such an island we have our choice out of three, which have nearly the same offing. One of the three it is undoubtedly, and it is more necessary to identify this, if possible, because Rhapta and the termination of the voyage depend upon it; it is for this reason that I have reserved it for a separate consideration, because if satisfaction can be obtained on this point, it removes all objections.

MENOOTHESIAS.

XX. This isle is the Eitenediommenoothésias of the Periplûs [260], a term egregiously strange and corrupted, but out of which the commentators unanimously collect Menoothias, whatever may be the fate of the remaining syllables. That this Menoothias must be one of the Zanguebar islands is indubitable [261]; for the distance from the coast of all three, Pemba, Zanguebar, and Monfia, affords a character which is indelible; a character applicable to no other island from Gardafui to Madagascar. Which of the three it may be, should not hastily be determined, but it can hardly be Pemba, which is the first, or most northerly, because, if the first were touched at, the others must have been passed, and ought to have been

[259] Stuckius makes it only eighty miles from Mombaça to Zanguebar, but this cannot be correct.

[260] See Appendix, No. iii.

[261] Stuckius, p. 31. supposes the Pyraláan isles to answer to the Zanguebar islands, or Zanguebar itself; but it is evident the Pyraláans are near the main, and these at thirty miles distance.

noticed; neither would the distances agree, either from the New Canal to Pemba, or from Pemba to Rhapta. Zanguebar as the centre and most conspicuous naturally attracts our attention, and Zanguebar is assumed by Vossius in opposition to Salmasius, Stuckius, and a cloud of opponents[262]. Not that we must suppose Vossius prejudiced in favour of one of these islands more than another, but that it must be one of the three, and ought to be that with which the distances of the journal are most consistent. The journal is very precise on this head, it gives two hundred miles from the New Canal to Menoothias, and one hundred from Menoothias to Rhapta; marking at the same time the distance of the island from the main, and the return of the course from the island to the continent. A reference to the map will now shew that these measures agree best with the course from Mombaça to Monfia[263]. This point, however, it is not now necessary to determine. But before we proceed in our inquiry, our attention is first due to the description of the island in the Periplûs: in this we have more characteristicks than usual, and some of them may lead hereafter to discover the particular island which is intended; for it is distinguished as *low* and *woody*[264]; it is said to have rivers, to abound with a variety of birds, and with the mountain or land tortoise. It has no noxious animals, for though it produces crocodiles, they are harmless. The natives use the Rhapta or

[262] See Salmas. Plinian. Exerc. p. 1243. Vossius ad Melam. Cellarius, lib. iv. c. 8. p. 163.

[263] Greater corrupters of foreign names than the Greeks there cannot be, and the first sound that suggested an idea to a Greek, generally led him to find a Greek name, and often to add a Greek tale of mythology to the name. There can be little doubt that Zocotora is a native term of the earliest date, but the Greeks turned it into Dioscórides at the first step. Possibly Monfia was made Monthia in the same manner; possibly also some affinity might still be traced from the natives.

[264] *Low* and *woody* are the actual terms applied by Captain Bissell to Pemba.

sewen vessels[265], both for fishing and catching turtle, and they have likewise another method peculiar to themselves for obtaining the latter, by fixing baskets instead of nets at the interstices of the breakers[266], through which the sea retires, when the tide is going out. These circumstances, it is probable, will enable some future visitor to determine which of the isles we are to call Menoothias; that it is one of them is demonstrable. There is some reason for thinking Zanguebar is not *low*[267]; whether Monfia is so, no means of information have yet occurred[268], and as to the crocodiles which do no harm, I should have supposed them to be the very large lizards not unfrequent in these latitudes, if I had not observed that the journal, when treating of Socotra, mentions both crocodiles and very large lizards which the natives eat[269]. Crocodiles will hardly be found in islands which cannot have rivers of any great extent or depth.

After these deductions, there is every reason to conclude, that the Menoothias of the Periplûs is fixed indubitably at one

[265] Barbosa notices this circumstance at the Zanguebar islands.

[266] Περὶ τὰ στόματα τῶν προεχόντων.

[267] When Duarte de Lemos invaded Zanguebar in 1510, the natives fled to the *mountains*. Faria, vol. i. p. 158. But, perhaps, if *low* on the coast, the island may still be called *low*. See the description of this island in Osorius, lib. ii. and from him in Stuckius, in which καταδενδρος seems still appropriate, but not so ταπεινη.

[268] By referring to the maps for the form of Monfia, it appears both in Ressendè and the modern charts like a semicircle or horse-shoe, enclosing a bay on the western side, resembling those islands in the South Seas which Cooke describes as a reef rearing its summit above the sea. From this form I conclude it to be *low*, which is one of the characters of Menoothias in the Periplûs. But a reef-like island does not present the idea suggested by that journal, which seems to intimate space and extension. Ressendè indeed says it is the largest island of the three, and twenty-five leagues in length. MS. in the Brit. Museum, p. 103. et seq.

[269] See Peripl. p. 17. Σάυρας ὑπερμεγέθεις. But Heródotus says the Ionians called [σαύρας] lizards by the name of crocodiles, lib. ii. Salmas. p. 873. See also Laval's Voyage. Harris, vol. i. p. 703. At St. Augustin's bay in Madagascar, he says, the place was covered with an infinity of large lizards *which hurt no one*.

of these two islands, the distance from the main is such as to suit no other upon the coast; for all the modern accounts concur in giving it at eight leagues, which are geographical, and which, compared with thirty Roman miles[270], approach too nearly to admit of a dispute. This is a point which has employed so much pains to settle, because upon this depend the conclusion of the journal, and the limit of discovery. But let us next examine the course, for we have three[271] thousand stadia to dispose of, which amount to three hundred miles, while the real distance from Mombaça to Quiloa is more than three hundred and fifty. I cannot think that this difference creates a difficulty in comparing an ancient journal with modern precision; and if it were allowable to assume Monfia for Menoothias, it would relieve the distance both ways. But a reference to Mr. Arrowsmith's map of Africa has convinced me that Pemba lies out of the course, and is too much to the eastward to be noticed; that Monfia is by no means conspicuous, and that Zanguebar is so prominent and obvious above the other two, that it might well attract the particular attention of navigators, and cause the others to be disregarded; but however the distance from this island to Quiloa may be deficient, its precise offing of thirty miles from the main counterbalances all other objections. The habits of the natives are

[270] Sixty geographical miles are equal to seventy-five Roman. Castaneda says, ten leagues, p. 67.

[271] I have reckoned throughout the whole navigation a day's sail at five hundred stadia, and that of a day and night at a thousand; not that any measure of this sort is correct, for Heródotus, lib. iv. p. 321. makes a day's sail seven hundred stadia, and a night's sail six hundred, that is, thirteen hundred for the δρόμος νυχθήμερος. If this were admitted here, the distance might be reconciled; but two different measures are not admissible in the same work, however authors vary. See Wesseling in loco.

likewise to be considered; for their employment, their vessels, their trade in tortoise-shell, continue the same to the present day. With all these points of resemblance, surely it is impossible that imagination should mislead us; and if we are not deceived, Zanguebar is Menoothias, and Rhapta may safely be assumed for Quiloa. But we are no otherwise determined to Quiloa, as to its present site, than as a known place, and from the supposition that the convenience of the spot might have attracted the natives or the Arabs, to fix a city here in the early ages as well as the later. All these cities or marts upon the coast were independent[272] of each other, and all under the government of their respective sovereigns; but the whole territory of Rhapta was subject to Kholêbus, the king of Maphartis in Arabia, and his authority was of long standing. The journal calls Rhapta the last[273] harbour of Azánia, and the termination of discovery. The modern Ajan is bounded at Cape Baxos, or as others state, at the Obii, and the coast from thence to Cape Corrientes, comprehending the modern Quiloa, is styled Zanguebar; it is this coast which Marco Polo calls the island[274] of Zanguebar, to which he gives an extent of two thousand miles, and in which he is not more mistaken than Ptolemy in his Menoothias, or in the inclination he gives this continent towards the east. The Periplûs fixes its own limit without monsters, prodigies, or anthropóphagi; a circumstance this, above all others, which gives reason to suppose that the author visited it himself[275]; for

[272] This is the second time these petty princes are noticed in the Periplus, and manifests the intention of the author to mark it as a peculiarity of the coast.

[273] τὸ τελευταιότατον ἐμπόριον τῆς Αζανίας.

[274] From the use of this word, it is evident that he took his account from Arabian authority; for the Arabs call every country an island which they approach by sea.

[275] Ubi desinit cognitio, ibi fingendi incipit licentia. Vos. ad Melam. p. 305.

the marvellous usually commences where knowledge ends, and this author indulges the same passion as other writers, when he advances beyond the boundary of his own knowledge in the east; but of this more will be said in its proper place. It has been our present business to consider the site assumed for Rhapta at Quiloa, with the several circumstances that attend it.

The points of the compass remain still to be considered; but this is a subject on which I have owned my incapacity, in former instances, to give satisfaction; and on the present occasion, I had rather impute the failure to my own inability, than to the mistake of the author. But if I interpret[276] his language right, he says that the island lies, in respect of the New Canal, more than south-west, and nearly direct west. This is not true of any island on the coast: Zanguebar lies very nearly south from Mombaça, and Quiloa south-west from Zanguebar. I cannot reconcile this, and as I am obliged to abandon the ground I had taken in my former discussion of this question, I will not now amuse the reader with conjecture: if any solution of the difficulty should occur, either to men of literature or professional men, I shall receive it with gratitude.

At Rhapta, however, we are now arrived, and the author uses this title in the plural, though he confines it to a single place; but Ptolemy has a river Rhaptus on which Rhapta

[276] .... μέχρι Πυραλάων νήσων [καὶ τῆς] καινῆς λεγομένης διώρυχος. ἀφ' ἧς μικρὸν ἐπάνω τῇ λιβὸς ... παρ' αὐτὴν τὴν δύσιν Εἰτεννηδιωμμενουθεσίας ἀπαντᾷ νῆσος.

.... To the Pyralaan islands and the place called the New Canal, from which [with a course] a little *more than south-west*.... the island Menoothias occurs *towards the west direct*.

The whole passage is corrupt, but the restoration of it is yet to be sought. See Dissertation.

stands, and a promontory Rhaptum more than a degree and a half farther to the south. It must be observed, that this is very much in harmony with the actual site of Quiloa, which is on an island in a bay at the mouth of the river Goavo[277], with Cape Delgado at the distance of somewhat more than a degree to the south. D'Anville has assumed Delgado for the Prasum of Ptolemy, in which I should not so confidently say that he is mistaken, if I had not proved that he has totally neglected the Menoothias of the Periplûs, the very point upon which all our positions in the neighbourhood depend. But if the Rhapta of Ptolemy and the Periplûs are the same, of which there is no doubt, then the circumstances of Ptolemy apply to Quiloa, and to no other place upon the coast. In this opinion I am not singular; for Vossius[278], as he agrees with me in making Menoothias Zanguebar, unites[279] also in allotting Rhapta to Quiloa.

It is always with regret that I dissent from d'Anville, as I am compelled to do in the present instance; but it seems extraordinary, that both he and M. Gossellin should identify Zanguebar with Menoothias, and yet not see that the Periplûs

[277] See the Voyage of Thomas Lopez, in Ramusio, vol. i. p. 134. Fra. Quilloa nuova e la vecchia e uno fiumo. A proof of more establishments than one in this neighbourhood.

[278] Menûthias illa est insula quæ nunc Zanguebar appellatur, huic enim omnia conveniunt quæ veteres de Menûthiade scribunt, non insulæ S. Laurentii, quæ plane ignota fuit Græcis ac Romanis, ut plenius alias ostendamus, Raptum vero promontorium est illud quod Quiloa vocatur. Vossius ap. Cellarium. It will be shewn hereafter in what sense Madagascar was unknown to the Greeks and Romans. See Cellarius, lib. iv. c. 8. p. 163.

[279] I think it highly probable that Vossius had seen Livio Sanuto, 1688. He also fixes upon Quiloa for Rhapta; and though I have seen little of his work, I was convinced by that little, that he is a geographer of considerable merit and sound judgment. This work is in the King's library, where I saw it by favour of Mr. Barnard.

specifies two days' sail farther to the south. This circumstance appears to me absolutely conclusive against Mombaça, or any of the places at the mouths of the Obii, and in favour of Quiloa. The source of their error seems to be derived from Ptolemy, who drops the coast of Seven Rivers, and passes from Nikon to Rhapta, without notice of any intermediate step.

PRASUM.

XXI. It is now to be observed, that Ptolemy[280] in going down the coast of Africa, as he has the same names with the Periplûs[281], so has he the same termination at Rhaptum; for his Prasum and *his* Menûthias are thrown to the conclusion of his account of Africa, and do not appear to be collected from any regular journal like this before us; but to be founded upon the report of some voyagers who had advanced farther south, in the intermediate time which had elapsed between the date of the Periplûs and that of his own publication. But if it follows from this that the Periplûs is prior to Ptolemy, so is there great reason to believe, that if he did not copy this journal as low as it went, it was one nearly of the same age. The hesitation with which he speaks of all below Rhapta proves that he had no regular data to proceed upon, and however he rebukes Marínus for error in his calculations, which, if adhered to, would have compelled him to carry Prasum to latitude thirty-four degrees south[282], he himself has a method by no means more efficacious.

[280] Africa, cap. vii. table iv.

[281] See Table.

[282] It is a remarkable circumstance that this should be nearly the latitude of the Cape of

Marínus, it seems, was upon his guard, and had reduced this excess to 23° 30′ 0″ south, or the tropick of Capricorn; but Ptolemy objects to this, as still too distant, and reduces Prasum to latitude 15° 30′ south, *because*, says he, the people there are black, and the country produces the elephant and the rhinoceros, circumstances which occur in latitude 15° north in Ethiopia, and consequently ought to occur again as many degrees south of the equator. This method of fixing a latitude is by no means satisfactory to Ramusio; for he tells us he was acquainted with a Portuguese pilot who was well read in Ptolemy [283], and who objected [284] very acutely, that if this ground were admitted, the inhabitants of Spain ought to be of the same colour with the Hottentots; for the straits of Gibraltar are nearly in the same latitude north as the Cape of Good Hope south. Without insisting upon this, it is evident that Ptolemy had no data from the journals to proceed on. But when he places Rhaptum in latitude 8° 25′ 0″ south, and Prasum in 15° 30′ south, he makes but one step of seven degrees, without a feature of the coast, or a circumstance intervening, which might enable us to judge whether the voyage had ever been performed or not; except that a nation of Ethiopians or Negro Anthropóphagi closes the account.

At Rhapta concludes the journal of the Periplûs, and all the knowledge of the ancients at Prasum. My own arrangement of the coast was fixed before I had seen M. Gossellin's work on

Good Hope, latitude 35° 30′ 0″. See Ptol. lib. i. c. 9. The whole of Marinus's error is imputed to calculating distances by the day's course of a ship; and the chapter that contains this charge is highly curious, and worth consulting.

[283] As probably all the Portuguese pilots were in that age.

[284] Livio Sanuto makes the same objection.

the same subject, and much disappointment was it to find that our conclusions disagreed. I have now reviewed the whole with the most scrupulous attention, and have found no reason to abandon the ground on which I stood. Such additional proofs as I obtained, I have now inserted; and such errors as I have discovered, I have corrected. A material one, in regard to the Phalangis of Ptolemy, I was not aware of, till I found that M. Gossellin had ascertained its character beyond dispute. Fortunately it did not interfere with the subsequent positions; and the acknowledgment of my mistake, in this instance, is a proof of my readiness to retract upon conviction. But in regard to my termination of the voyage at Quiloa, it is so decidedly fixed by the coast of Seven Rivers, by the distance of three thousand stadia from thence to the south, and by the island thirty miles from the coast, that the evidence appears to me incontrovertible. To these characteristicks, Ptolemy [285] adds a river at the port, a cape one degree and a half south of the port, with a projection of almost three degrees from the continent: the whole of this answers so essentially to Quiloa, and Cape Delgado, and to nothing else on the whole coast, that the idea of misconception seems impossible. I am ready to admit that the number of stadia is too small, and the projection of the Cape too large; still the general features of resemblance are so numerous and so unequivocal, that in my own opinion

[285] Ptolemy, p. 112.

	Longitude.			Latitude.	
	Latin Copy.	Greek Copy.		Latin Copy.	Greek Copy.
Rhapti fluvii Ostia,	72° 0′ 0″	72° 30′ 0″	—	7° 0′ 0″	7° 0′ 0″
Rhapta Metropolis,	71° 0′ 0″	71° 0′ 0″	—	7° 0′ 0″	7° 0′ 0″
Rhaptum Prom.	73° 50′ 0″	73° 30′ 0″	—	8° 36′ 0″	8° 32′ 0″

they are decisive: and I persuade myself, that my proofs will be admitted by all who do not expect to find the precision of modern geography in the longitudes of Ptolemy, or the journal of a merchant.

I shall now subjoin a Table*, which will present the whole arrangement of the coast from Gardefan to Quiloa in one view; and if it does not afford that conviction to others which I feel myself, I have laboured much without effect.

* Since the construction of this Table, I have obtained, by favour of Mr. Dalrymple, the journal and charts of Captain Bissell, a most intelligent officer, who commanded the Leopard, a ship of Commodore Blanket's squadron, in the expedition to the Red Sea, 1798. This fleet was detained for forty weeks, struggling against the north-east monsoon; a circumstance peculiarly favourable for settling the hydrography of the coast. The observations likewise appear to have been taken with every advantage which could be expected from the most skilful officers, assisted with the best of instruments. In Captain Bissell's chart, Pemba is laid down in latitude 5° south, nearly at 52 miles Roman from the coast; and Zanguebar, at the anchorage, 29½. This distance corresponds so precisely with that of the Periplûs, as to afford the strongest reason for identifying that island with Menoothias. But it ought not to be concealed, that the character attributed by Captain Bissell to Pemba is *low* and *woody*; the exact ταπεινὴ καὶ καταδενδρος of the Periplûs. Still the termination of the voyage would not be affected by the doubt which this might cause, in regard to fixing upon any one of the three islands in preference to the other two; for though they occupy three degrees and an half of latitude, there is no place of consequence on the coast below the most northern point of Pemba, till we arrive at Quiloa. I still give the preference to Zanguebar, on account of the distance; and am not without hopes that stronger points of correspondence will be traced by future information.

Coast of AZANIA[a], from Cape AROMATA to RHAPTA [and PRASUM].

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D. prefixed, denotes D'Anville. * Points ascertained. ? Doubtful.

Stadia of the Periplûs.	PERIPLUS.	PTOLEMY. Lat. North.	Modern Names and Latitudes.
Allowed for the difference of 1° 15′ 0″ between Arômata and Tabai, where Ptolemy makes the difference 2° 30′ 0″.	I. Aromata	Arômata — 6° 0′ 0″	* Gardefan — D. 11° 45′ 0″
		Panópros Vicus, or Panôn — 5° 0′ 0″	Bay of Beyla.
		Opônè — 4° 45′ 0″	
900	II. Tabai With two heads. Oriental Navigator.	Zengísa, Zingin — 3° 30′ 0″ Phalangis Mons — 3° 30′ 0″ With 3 heads. Ptol. Goss.	* Dorfui / Daffui / [b] Afiun — 10° 30′ 0″
400	III. Opônè 400 stadia round the Chersonese. Current to the south. Coast trends to the south.	—	[c] Bandel Caus ? — 9° 45′ 0″
	IV. Apókopa the Less	Apókopa — 3° 0′ 0″	* Morro Cobir — D. 8° 0′ 0″
3000	V. Apókopa the Greater Six days sail from Opônè, terminating at a river. None occurs in the charts at Baxas. But the point is ascertained by notice of the change of course to the south-west.	Southern Horn — 2° 12′ 0″	* Cape Baxas — D. 4° 35′ 0″ Shoal Cape.
	VI. Little Coast	Little Coast — 1° 0′ 0″ } There is disorder in the text, and some confusion arising from lat. N. and lat. S.	
3000	VII. Great Coast Six days sail.	Great Coast — 2° 30′ 0″	* Magadasho — D. 2° 0′ 0″
	VIII.	Essina — 0° 0′ 0″	Brava ? Berva of Al Edrissi D. 1° 0′ 0″ N.
500	IX. Serápiôn[d], one days sail	Serápion — 3° 0′ 0″ Lat. South.	Brava ?
500	X. Nikôn, one days sail	To Nikè, Niki — 4° 45′ 0″	
3500	XI. Rivers and Roads seven in all, ending the Pyraláan Islands. 1. Boubo 2. Jugo 3. Manè 4. Quiami 5. Punta da Bagona 6. Patté 7. Mandaro Joubo in d'Anville is 50′ S. of Berva, which would correspond with the first of Six Rivers, and lies immediately under the Equator. Names from Bertholet	—	* Mouths of the Obii. / Coast of Melinda — D. 4° 10′ 0″ S.
	XII. Pyraláan Islands, New Canal	—	* Mombaça — D. 3° 50′ 0″ S.
[e] 2000	XIII. Eitenediom[f], Menôothésias Two courses of 24 hours[g] each.	—	Pemba ? — D. 4° 45′ 0″ S. * Zenzibar ? — D. 6° 35′ 0″ S. Monfia ? — D. 7° 32′ 0″ S.
[e] 1000	XIV. Rhapta[h], two days sail	Rhapton River — 7° 0′ 0″ S. Rhapta Metropolis of Barbaria — 7° 0′ 0″ S.	* Quiloa[i] — D. 8° 10′ 0″ S.
		Rhapton Promontory — 8° 20′ 12″ S.	* Cape Delgado — [k] D. 10° 10′ 0″ S.
		Menoothias — 12° 30′ 0″ S.	Madagascar ?
	XV.	Prasum[l] — 15° 30′ 0″ S.	Mosambique ?
		Head of the Nile — 13° 0′ 0″ S. / 12° 30′ 0″ S.	
14,800 stadia, equal to 1480 Roman miles, of 75 to a degree. Divide 1480 by 75, and it produces 19 degrees 55 miles, while the real distance from Gardefan to Quiloa is somewhat more than 20 degrees: difference only 5 minutes.			

[a] It is not absolutely clear that the Azánia of the Periplûs commences at Gardefan; but it is carried south to Rhapta. The modern coast of Ajam begins below C. Daffui. Ptolemy's Azania is inland.

[b] Afiun. Dapper, p. 403.

[c] Ptolemy considers the bay subsequent to his Zengísa as the commencement of Azania. Lib. i. c. 17. But the whole he treats as Barbaria, the capital of which is Rhapta.

[d] Serapiôn is a promontory also in Ptolemy, as well as a port; and there is a small headland at Brava or Berva. I should rather wish to adopt this, but have no means to identify it.

[e] The four last courses from the New Canal to Rhapta are considerably too short. The allowance for the two νυχθημέροι may perhaps not be sufficient.

[f] See Dissertation.

[g] Νυχθημέρες ..... τῷ Θεοφίλῳ τῷ ΝΥΧΘΗΜΕΡΟΥ φορὸν πλοῦν χιλίων σταδίων ὑποτιθεμένῳ. Ptol. lib. i. c. 9.

[h] The Periplûs uses Ραπτὰ, as applied to the description of the vessels here πλοιάρια; but Ptolemy's three Rhaptons may likewise justify the plural.

[i] D'Anville terminates the voyage at the mouths of the Obii, Patè, Sio, Ampaça, and Lamo, in which he is followed by Gossellin. Marmol and di Barros assume Melinda, but Livio Sanuto and Vossius fix upon Quiloa. In my opinion, the course of the four last days determines it incontestably for Quiloa; for two days to an island thirty miles from the coast, and two days from the island back again to the main, can suit with nothing but one of the Zanguebar Islands. There are no other islands upon the whole coast which lie at this distance. The Rhumb in both instances is oblique with the coast.

[k] There is a difference between the latitudes of d'Anville and those of the Oriental Navigator, but not material in such a calculation as this before us.

[l] The Prasum of Ptolemy is not in his regular catalogue of the coast of Africa, but at the conclusion of the book, lying in lat. 15° 30′ S. The early Portuguese pilots always assumed it for Mosambique. Opposite to this (ab æstivo ortu) towards the N. E. lies Menoothias. This may be Madagascar, but cannot be any of the Zanguebar Islands, for their latitude is from 4° 45′ to 7° 32′ South. By longitude, likewise, it cannot be one of the Zanguebar Islands, for they lie only 30 miles from the coast, whereas the Prasum of Ptolemy is in long. 80°, and his Menoothias in 85°, that is, it is near 350 miles from the coast; and this is, within less than a degree, the distance between Mosambique and Madagascar. Mercator's chart is framed upon this supposition.

MENOOTHIAS OF PTOLEMY.

XXII. After bringing the journal of the Periplûs to a conclusion, it will not be foreign to the design of this work if we proceed to examine the Menoothias of Ptolemy. It is opposite to Prasum, but towards the north-east[286], that Ptolemy has placed this island, and at the distance of five degrees from the continent; for his Prasum is in longitude 80°, and his Menoothias in longitude 85°. His latitude of Prasum is 15° 30′ south[287], his latitude of Menoothias is 12° 30′ 0″. It is from this latitude of 15° 30′ south, that the early Portuguese universally assume Mosambique for Prasum; and if it were so, the Menoothias, five degrees to the east, can be nothing but Madagascar. Now it is not necessary to assert that either of these assumptions is correct; but, true or false, it is evident that the Menoothias of Ptolemy is different from that of the Periplûs. The one is opposite to Prasum, in 12° 30′ south; the other is north of Rhaptum, and is in 9° south. The one is five degrees, the other is only thirty miles from the continent. Where Prasum is to be placed is an object worthy of inquiry, if there were data sufficient to determine it, as it is the final limit of ancient discovery to the south. I can point out no fitter position for it than Mosambique; and if the Greeks did reach that port, they must probably have heard of the great island. The title of

[286] Ἀπὸ θερινῶν ἀνατολῶν.

[287] Latin text 15°. In the Voyage of Nearchus I had taken the longitudes and latitudes from the Latin text, from a supposition that it was more correct than the Greek, and of equal authority; for it is not a translation, but supposed to be taken from an older and better Greek copy. A learned friend corrected some of my errors by referring to the Greek, and advised me to consult it more.

Menoothias (which Salmasius[288] says is still the Memithias of the natives) was possibly assigned to it, as the name of the last island known, like Thulè in the north, or Cernè on the south, for a Cernè is found as the limit of African knowledge both on the western and eastern side of the continent. Hanno, or at least those who followed him, finished their voyage at a Cernè[289]; and Pliny, as well as Dionysius, finds another in the Indian Ocean. One of the first names by which Madagascar was known in Europe was the Island of the Moon, possibly an Arabian interpretation of Men-oothias[290]; but Marco Polo calls it Madaster, an appellation which it received from the navigators of his age, who were apparently Malays rather than Chinese; and to that language we should look for the etymology of the term.

XXIII. Let us pause at this boundary of ancient discovery, and examine briefly the opinions of mankind upon the subject. To commence with our author, nothing can be more guarded or unassuming than his language. The ocean, he says, beyond Rhapta, as yet undiscovered, sweeps round with a turn to the west; for as it washes the shores of Ethiopia, Libya, and

[288] Salmasius undoubtedly does assert it, as I learn from Vossius; and the Index in voce Madagascar refers to p. 1244. but there it is not. I should have been glad to see his authority for Memithias.

[289] Hanno went farther; but in the time of Scylax, Cernè was the limit. See Mr. Gosselin's Recherches, tom. i. on this subject, to whose opinion I do not subscribe.

[290] It is Μεν not Μην, or else I should consider this as certain. The Island of the Moon is a term sent to Europe by Covilham, in his letter to John II. king of Portugal. He says this was the name by which the natives called it. This, as attributed to the natives, may be doubted; but it is certainly the term Comr used by the Arabs, as appears from Al Edrissi. Madaster, the name given by M. Polo, is more likely to be the native appellation. He is the first author who conveyed this name to Europe.

Africa, in their inclination to the south-west, it joins at last with the Hesperian or Atlantic Ocean. This notion is consistent with the general sentiments of the ancients on this subject; and a variety of authors, from Heródotus to Pliny, not only suppose the communication of the two oceans, but the actual performance of the voyage. If credit were due to any, Heródotus has the fairest pretensions[291]; he has certainly no intention to deceive, but was deceived himself by the vanity of a nation who set no narrower bounds to their geography than their chronology; whose kings were gods, and whose gods were monsters. The natural propensity of mankind to assert the actual performance of all that is deemed possible to be performed, is not confined to Egyptians, Greeks, or Romans. The problem of a north-east or north-west passage to the Southern Ocean has been exploded only within these twenty years; but while it was thought practicable, the pretenders to the performance of it were as bold in their assertions as the Egyptians of Heródotus.

As the Argonauts sailed from the Mediterranean by the Palus Meôtis[292], and the Tanais[293] into the Hyperborean Ocean; or as others are said to have come from India north about by Tchutskoi[294], and through the Wolga into the Caspian Sea and Hyrcánia; so in a more recent age have we an history of a ship called the Eternal Father[295], commanded by Captain David Melguer, a Portuguese, who in the year 1660 ran north from Japan to latitude 84°, and then shaped his course between

[291] Haud alio fidei proniore lapsu quam ubi falsæ rei gravis autor existit. Pliny, lib. v. p. 92.

[292] Pliny did not quite think this impossible, lib. ii. c. 67.

[293] The Sea of Asoph and the Don.

[294] Strabo, xi. p. 518. Ὅτι δὲ δυνατὸν, Πατροκλῆς εἴρηκε. See Pliny, lib. ii. c. 67.

[295] Perouse's Voyage, vol. ii. p. 193. Eng. ed. octavo.

Spitsbergen and Greenland, by the west of Scotland and Ireland, till he reached Oporto. We have a Captain Vannout, a Dutchman, who affirms that he passed through Hudson's straits into the South Sea. Another Dutchman[296] who sailed in an open sea under the North Pole, and a John de Fuca who sailed from the South Sea into Hudson's Bay. Campbell also notices Andrew Urdaneta, a friar of Mexico, who told Salvatera, a gentleman of Victoria in Spain, that he came from Mer del Sur (the South Sea) into Germany through a north-west passage, and pointed it out on the map of Ortelius: a fiction which proves that a Spanish friar is not more worthy credit than a priest of Egypt. We have in Bergeron an account of a similar voyage. He says, Button had it from Thomas de Caroles, who received it from Martin Chacque, a Portuguese, and that Chacque shewed it him in a Portuguese book; but the book[297] could not afterwards be found. All these accounts have been reported and believed in their several ages, convicted as they now are of falsehood or impossibility, and traced, as they may be, to error and amplification. To this spirit of vanity it is doubtless that we may refer the Persian Fable of the voyage of Scylax; the Egyptian boast of the circumnavigation of Africa; the Grecian vanity concerning the same achievement by Eudoxus[298] and Magus[299]; and the ig-

[296] I suspect the voyage of Jacobus Cnoyen Buschoducensis (Bois le duc), mentioned by Mercator, through all Asia, Africa, and the north, to be a navigation of this sort. But *voyage*, in the sense of a foreigner, does not always imply *navigation*. See Hackluyt, i. 445.

[297] I rather think that there was such a book, and that it contained Melguer's voyage, as Ireland is mentioned in both; though the latitudes of the passage differ, one is in lat. 56°, and the other in lat. 84°. See Campbell's Lives of the Admirals, vol. i. p. 498. Bergeron Traitè des Tartares, c. 21.

[298] Those who wish to see the mendacity of Eudoxus, and the credulity of Posidônius set in their true light, may consult Strabo, p. 101.

[299] I am not certain whether Magus be a proper name or not, but he is one of the pre-

norance of Pliny in carrying Hanno from Carthage to the Red Sea, notwithstanding his own journal was extant, which shews that he never passed the equator [300].

Nothing [301] is more easy than to affirm the accomplishment of these great attempts, where an author clogs himself with neither circumstances or particulars; but whenever we obtain these, as we do in the journal of Nearchus or the Periplûs, we find indeed that the ancients performed great things with slender means; but we see plainly also what they could not do. We see, with such vessels as they had, they could neither have got round the Cape of Good Hope, by adhering to the coast, where the violence of the ocean must have been insupportable, nor could they have avoided this by standing out to sea, as they had neither the means nor the knowledge to regain the shore if they had lost sight of it for a single week. It does not appear in the whole history of ancient navigation, that any voyage was performed either in the Mediterranean or on the ocean by any other means than coasting, except the voyages from Arabia and Africa to India, and back again by the Monsoons. It does not appear that there was any sort of embarkation known in the world which was fit to encounter the mountainous billows of the stormy Cape [302]. History speaks of no vessels fit for the

tenders to this circumnavigation, mentioned by Strabo from Posidônius, lib. i. p. 32. sent by Gelo of Syracuse, and considered as an impostor by both.

[300] Campomanes places the Gorillas at St. Thomas under the equator, but probably without sufficient authority.

[301] It was a great satisfaction to me to find by accident, that Purchas had given his opinion in harmony with what is here advanced, and had used arguments not very dissimilar. Vol. ii. p. 47.

[302] The same report which was made to M. Polo, concerning the violence of the sea beyond Cape Corrientes, is to be found in almost all the Oriental writers. In the following quotation we have the evidence of two. De fluctibus hujus maris res prorsus stupenda narrantur. Inquit Al Sherif Al Edrissi ibi fluctus multiplex assurgit instar totidem montium reci-

ocean but those which Cæsar describes on the coast of Bretagny; and if the Phênicians came to our island for tin, assuredly it was a summer voyage. The vessels of the Mediterranean were unfit for this service, not so much from their size as their built; and if it is observed that Solomon and the Phênicians traded in the Red Sea, and down the coast of Africa, perhaps as low as Sofala, it must be conceded, also, that vessels [303] built at Ezion Geber could not be large, and that the danger of the voyage, as far as they proceeded, was attended with a terror, that perhaps nothing but the Phênician thirst of gain could have surmounted. This terror Bruce has noticed with much acuteness. The prison, the straits of burial, the port of death, and the gate of affliction, he remarks, are names given to the marts in the course of this navigation; and if such was the alarm upon the mind of the seamen, when they visited this tract in the favourable season of the monsoon, what

procatorum, qui fluctus nequaquam frangitur; eoque naves deferuntur ad insulam Kambalah, quæ in prædicto mari sita ad Al Zang-[Zanguebar] pertinet, incolæ sunt Moslemi. Abulfeda, in versione Gagnieri. MS. in Bodleianâ Bibl.

We here learn that there were Arabs, Mahomedans, on the coast of Zanguebar, that there was a trade thither from Arabia or the Red Sea, and that the navigation beyond was unattempted on account of the mountainous sea. See Al Edrissi, p. 28, et seq. who mentions beyond Sofala, Tehna where there is a hollow mountain, whence the waters rush with a tremendous roar, and a magnetick rock which draws the nails out of ships. Some other places to the south are mentioned, but with great obscurity, as Saion, Daudema, Gasta, Dagutta, and Ouac-Ouac, the termination of all knowledge on the coast of Africa, and indeed of all the geographical knowledge of the Arabs, p. 34. Such is the account of Al Edrissi, who wrote anno 548, Hegiræ, or 1153, about a century before M. Polo, and apparently about 500 years after the decline of the Greek and Roman commerce from Egypt.

[303] Quam parvi sunt momenti et virium nullarum orientalium meridionaliumque navigia ubi nostris collata fuerint. Cadamosto. Grynæus, p. 63.

He is here speaking of the ships met with in the East Indies, which sailed from the Moluccas to Calicut. He adds, that two elephants draw a ship on shore, p. 82. but this must be applied to the coasting vessels, and not such as Barthema saw at Tarnassari.

must it have been if they had attempted to pass Cape Corrientes [304], and had launched at once into the ocean which surrounds the extremity of Africa. Cape Corrientes (so called from the violent currents formed by the pressure of the waters through the narrow channel between Madagascar and the main [305],) was the boundary of Arabian navigation when Gama first came upon the coast; whether the Phênicians, Egyptians, Greeks, or Romans ever reached so far may well be doubted, if they did, the Prasum of Marínus and Ptolemy may as properly be placed there as at Mosambique, but that farther they did not go is certain [306]. The Arabs [307] knew the coast earlier, later, and longer than all of them united; they were settled here while the others were transient visitors, and they had the opportunity of observing the seasons, winds, and currents; and what they did not dare attempt, no nation, unless possessed of superior skill, power, or resources, can be supposed to have accomplished.

XXIV. But from argument let us come to facts, and bold as the presumption may appear, it is not too bold to assert, that there is no evidence of a farther progress to the south, on the western coast of Africa, than that of Hanno, nor on the

[304] Facile homines abstinere solent ab iis locis unde vel nullus vel difficilis sit regressus. Vossius ad Mel. p. 595. ed. Var.

[305] Marmol describes not only the currents, but islands, shoals, and the most violent winds that are known. Vol. iii. p. 106.

[306] Rien n'étoit si peu avéré chez les anciens, comme on en juge par Ptolemée, que le récit qu'on faisoit de quelques navigations qui avoient tourné le continent de l'Afrique par le Midi. D'Anville, Geog. Anc. tom. iii. p. 68.

[307] The Arabs were so far from thinking of a communication by means of the extreme point of Africa, that when Renaudot's Arabs mention a *Sewen* ship found in the Mediterranean, they suppose it carried north about from China to the sea of Chosrs, i. e. the Caspian, and then by the Muscovite Ocean to the mouth of the Mediterranean.

eastern, than that of the Periplûs. In asserting this, if I detract from the authority of Heródotus, Diodôrus, Ptolemy, Juba, and Pliny, it is a detraction consistent with the most perfect veneration of those great and illustrious authors, for they have all followed the reports of others, while the author of the Periplûs and Hanno speak from their own experience. It is from reports of others that we hear of a Cernè, and a Southern Horn, on both sides of this vast continent. These names were, in the respective ages the ne plus ultra of knowledge on both sides; and whoever sailed, either from the Red Sea, or the Mediterranean, arrived at these points, as Columbus arrived at the *Indies* by taking a course directly opposite to Gama. The Southern Horn of Ptolemy, on the eastern coast, is in latitude 4° 50′ 0″ north, and the extreme point of Africa [308], is nearly in 35° south, making more than thirty-nine degrees difference; the Southern Horn of Hanno, on the western coast, is in latitude 7° north, making two-and-forty degrees from the same extremity; but if we take both together, reckoning eighty-one degrees from one Southern Horn to the other, this is a space that Pliny reduces as it were to a point, and considers the junction of the Atlantick Ocean, as taking place almost instantly; Juba takes a much bolder flight, and reckons the commencement of the Atlantick Ocean from the Bay of Mosyllon, annihilating by this method, if it were possible, the immense triangle of this vast continent [309], and bringing his own Mauritania almost in contact with Arabia. The particular attention of all who are curious on this subject is re-

[308] Cape Agulhas.

[309] By consulting the map of Bertius inserted in the Variorum edition of Pom. Mela, by Js. Gronovius, it will be seen that this is a fact.

quested to this point, for it is upon conceptions equally erroneous as this, that too many of the ancients supposed the circumnavigation of Africa as possible as the doubling of Málea or Lilybêum. And this supposition of the possibility produced the belief of the performance. Pliny is self-evidently chargeable with this misconception, and Heródotus had probably no means of information by which he could form a judgment of the extent of Africa to the south.

It is on this ground above all others that we may assert, that the author of the Periplûs visited Rhapta in person; he had not heard of Prasum, a proof that the account of it is posterior to his age; he takes no notice of the circumnavigation ever having been accomplished, a proof that he knew nothing of Heródotus, or did not believe his report, although at the same time he admits the junction of the two oceans as a fact. He says nothing of Cernè, which is a proof that the mistake attending it, commenced from the Mediterranean and not from the Red Sea. That the general tendency of the coast was south-west he saw, as far as he went; and that it continued so, he might collect from the natives or the Arabs; or he might conclude the union of this sea with the Atlantick, from considering that converging lines must meet. But whatever source of intelligence he had, that he should mix nothing marvellous or extravagant with the termination, is a merit that few of the ancient geographers have to boast.

The facility with which Pliny[310] carries his navigators round the world is rather magical than false; he annihilates space, and sinks continents under the sea. He supposes that the

[310] Lib. ii. c. 67.

Macedonians, in the time of Seleucus and Antíochus, sailed from India into the Caspian Sea, and that the whole Hyperborean Ocean was all but explored [311] quite round to the north of Europe. The circumnavigation of Africa is effected with equal celerity; for this was accomplished not only by Hanno [312] from Gades to Arabia, and by Eudoxus from Arabia to Gades; but long before Eudoxus, Cêlius Antípater had seen a merchant who sailed from Gades to Ethiopia. Nothing can be so unfortunate as these assertions; for we have Hanno's [313] own account to prove he never was within forty degrees of the cape, and Strabo's authority to prove, that Eudoxus never came from Egypt to Gades by the ocean, but by the Mediterranean; and that full as his mind was of attempting the voyage, the attempt if made would have commenced from Gades, could he have found protectors to patronize his undertaking [314]. Of Cêlius Antipater we can say nothing, but if he did meet with a merchant who had sailed from Gades to Ethiopia, it was certainly not the Ethiopia south of Egypt, but that on the western coast of Africa. No merchant or merchant-ship could have performed a voyage which the greatest potentates must have attempted in vain. But the most extraordinary circumstance still remains, which is, that there is in this place no mention of Heródotus [315],

[311] Parvoque brevius quam totus, hinc aut illinc septentrio eremigatus. Pliny.

[312] Pliny mentions the commentaries of Hanno, lib. v. c. 1. but almost as if he had not seen them, and certainly as if he did not believe them.

[313] This is so readily admitted by common inquirers, that Mickle in his translation of the Lusiad says: "Though it is *certain* that Hanno "doubled the Cape of Good Hope," p. 2.

[314] Strabo, p. 101, 102. where he allows the voyage to India, but refuses all credit to Eudoxus. Euérgetes, [IId.] he says, could not want guides to India, there were many in Egypt; which is true, so far as single persons and single ships had reached India. This question will be examined in Book IV.

[315] Bruce is so full of an East India trade, and so fond of placing it in an early age, that he sees no difficulties in his way; and he proceeded so much upon hypothesis that he neglected history. He knows so little of the

or the voyage he attributes to the Phênicians in the reign of Neko. This is the more remarkable as the account of Heródotus has strongly the semblance of truth, while Hanno and Eudoxus never pretended to the honour of the achievement themselves, nor was it ever imputed to them by any one who was acquainted with their real history, their situation, object, or designs.

It is with great reluctance that I controvert the testimony of Heródotus, for it is no light offence to question historical facts upon evidence of mere speculation. It must be confessed likewise, that the facts he gives us of this voyage, though few, are consistent. The shadow falling to the south, the delay of stopping to sow grain and reap an harvest[316], and the space of three years employed in the circumnavigation, joined with the simplicity of the narrative, are all points so strong and convincing, that if they are insisted upon by those who believe the possibility of effecting the passage by the ancients, no arguments to the contrary, however founded upon a different opinion, can leave the mind without a doubt upon the question. That different opinion I confess is mine, but I wish to state it with all deference to the Father of History, and with the profession that I am still open to conviction, whenever the weight of evidence shall preponderate against the reasons I have to offer.

I allow with Montesquieu, that the attempt commenced from the eastern side of the continent, presents a much greater

voyage of Nearchus, that he makes him terminate his expedition in the sea of Suez. I could proceed by analogy as high as Bruce by hypothesis, but my object is to investigate truth by means of historical evidence alone. See Bruce, vol. i. p. 456, and p. 470. quarto edit.

[316] To this, however, it has been objected, that they would expend more provision by the delay than they would gain by the crop.

facility of performance than a similar attempt from the west; for we now know that both the winds and currents are favourable for keeping near the coast from the Mosambique Channel to the Cape; and that after passing the Cape from the east[317], the current still holds to the northward up the western coast of Africa. But if this was so far in their favour, still about Cape Verde both the wind[318] and current would become directly adverse; and if they could not sail, was it possible to conduct a fleet by rowing round such promontories as Cape Verde, Cape Blanco, and Cape Boyador? The fatigue, the danger of the seas, the necessity of landing for provisions, water, and relaxation, the disposition of the natives, and the obstruction of the current for almost 20°, present such an accumulation of difficulties, that success in a first attempt must be deemed incredible. That the Portuguese surmounted all this, and more, is true; but they proceeded with the compass and astrolabe; they could quit the coast at pleasure; they did not row, but sail; they could tack if the wind were adverse: and yet with all these advantages, and much better vessels, it was only by the experience of successive voyages, and the perseverance of a century, that they at last accomplished what the Phênicians performed in three years, and at the first attempt.

But had there been no other dangers to encounter beyond those of the stormy Cape, let us consider the prodigious[319] sea, raised by the junction of the two oceans, almost perpetually, and at every season of the year: this is such, that originally the

[317] See Forrest on the monsoons, p. 10. 13.

[318] This wind and current is such, that a voyage *to* Guinea is only seven weeks; *from* Guinea, twenty, and the course far out in the ocean. Hackluyt, vol. ii. p. 22. Tho. Lok.

[319] See Sousa, Osorius and Sir Tho. Herbert, p. 20.

stoutest fleets of Portugal seldom passed without loss; and the danger is now avoided only by standing to the south[320]. The latter means of safety could not have been adopted by the Phênicians, they could not stand out to sea; and if they adhered to the coast, by all that we can now judge from the construction of ancient vessels, shipwreck must have been inevitable.

But to omit these considerations for the present, let us observe, in the first place, that the actual performance of this voyage stands upon a single testimony, and of all the circumnavigations affirmed, this is the only one which will bear an argument. If it took place in the reign of Neko, Heródotus lived an hundred and sixty years after the fact[321], and received the account from the Egyptians. That Heródotus did receive the account, must be indubitably admitted. His general veracity is a sufficient voucher. But that the Egyptians deceived him is an imputation which he does not scruple to instance in some other[322] particulars, and of which we have the most undoubted evidence at this day. If we take the date of Neko's reign in 604, A. C.[323], and allow that he was a sovereign attached to commerce, (as appears by his attempt to make a canal from the Nile to the Red Sea,) it will be readily granted that he must be acquainted with the navigation of that sea, and

[320] In attempting which, several ships have fallen in with the Ice Islands so graphically described by the illustrious Cook.

[321] The voyage ordered by Neko is placed by Blair before Christ, about 604
Heródotus read his history 445
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[322] Τοῖσι μέν νυν ὑπ' Αἰγυπτίων λεγομένοισι χρᾶσθω ὅτεω τὰ τοιαῦτα πιθανά ἐστιν· Ἐμοὶ δὲ παρὰ πάντα τὸν λόγον ὑπόκειται ὅτι τὰ λεγόμενα ὑπ' ἑκαστων ἀκοῇ γράφω. Lib. ii. p. 162. ed. Wes.
"Let those who please receive the reports "of the Egyptians as probable; but for my "own part, throughout the whole of my "work, I only write what I have heard from "the respective reporters."

[323] His reign begins in 616, and ends in 601. Blair.

the commerce carried on there, and on the coast of Africa beyond the straits by his own subjects, by the Arabians or the Tyrians. The Egyptians had probably the least share in this, but the trade itself is to all appearance as old as Thebes, and the cause of its splendour and aggrandizement. That it was prosecuted by Solomon[324], Hiram, and Jehosaphat we know historically; and that it was enjoyed in all ages by the Arabians in some form or other, there is every reason to believe from the commodities found in Egypt, Palestine, and Europe. These causes, and the testimony which Agathárchides bears, that the gold mines on the coast of the Red Sea were wrought by the native kings of Egypt, prove that Neko might wish to extend his knowledge down the coast of Africa to its termination, and that he might consequently send a Phênician fleet to the southward for that purpose. But that they executed their commission is not so readily to be admitted. Had this fleet no difficulties to encounter, because we read of none but the want of provisions? Can we suppose the Phênicians so superior to the Greeks in the art[325] of navigation, as to have no dread of passing the greatest promontory in the world, when Nearchus and his officers shuddered at Mussendon, and dare not attempt Ras-el-had? Can we believe that Phênicians who had never crossed the Indian Ocean were bolder mariners than the Arabians, who trusted themselves to the monsoons? and yet the Arabians had never ventured to try the Mosambique cur-

[324] Solomon died in 980, A. C. Jehosaphat in 889. Neko is near 300 years later.

[325] "The most experienced pilots, furnished with all those people [the inhabitants of the islands in the Pacifick Ocean] want, in losing sight of land for two or four days, do not know, and cannot determine their situation. Thus it may be affirmed, that the instruments of navigation of these Indians are their own eyes, or their guess of small distances." Quiros's Memorial. Dalrymple, p. 101.

rent, during their settlement in its neighbourhood for fourteen hundred years, while these Phênicians launched into it at first sight? To them the terrors [326] of the stormy cape were no barrier, and the promontories on the western coast of the vast continent no obstacle. Raise them as we please above Greeks, Romans, and Arabians in science, they were doubtless inferior in courage to them all. And whatever science we allot them, the smallest bark could have been conducted by the knowledge [327] of a Portuguese pilot in greater safety, than the largest vessel ever fitted out of Egypt. Some admirers of the ancients, not content with supposing the execution of such a voyage, are willing to give them the means, by furnishing them with the compass, and other nautical instruments; these, it is said, were found in the possession of the Arabians, at the time the Portuguese first came into the Indian Ocean, and that they were afterwards met with in India and in China. The fact is true, but this was in the latter end of the fifteenth century, and the compass is said to have been known in Europe early in the thirteenth [328]; it had therefore passed from Italy into Egypt, and from Egypt to the Red Sea. But this argument, if it could be supported, would effectually contradict the hypothesis it is brought to support; for it would prove, that the Arabians of Mosambique, who really possessed these instruments, had never been enabled by them, nor ever dared, to pass southward of Corrientes in their neighbourhood, while the Phênicians had

[326] See the ordinary danger of the Cape without storm. Hackluyt, ii. 2d part, p. 100.

[327] Captain Bligh's passage from the Friendly Islands to Timor has been adduced as a proof of what a boat can perform and endure; but he had a trade-wind all the way in his favour, with *instruments* and experience that place him in a very different situation from an ancient navigator.

[328] Arbuthnot, p. 280. from Fauchet and Guyot de Provence.

actually circumnavigated the whole continent. Now, if the Phênicians had not the compass, how could they perform what was with difficulty performed by it? If they had it, how happened they to perform so much more by it in an early age than the Arabians in a later? But this question [329] has been set at rest by Niebuhr, Mickle, and Sir William Jones, who shew that the Arabian [330] and Indian compass is formed from that of Europe.

But let us now examine the text of Heródotus. The narrative of this voyage is introduced in a passage where he is giving the limits and extent of the three continents, and here he says, that Neko proved Africa to be surrounded by the ocean from the completion of this voyage. One expects, however, to hear of the officer who commanded; it was at least as great an exploit as any which the fabulous navigators had achieved. Sesonchôsis, the Oriental Bacchus, and Hercules, whatever might be the extent of their victories, peregrinations, or voyages, fell far short of this, and they were immortalised; while among the Greeks, Jason, who sailed little more than seven hundred miles, was himself worshipped as a hero, and had his ship translated to the sphere. How happened it then that the greatest discovery which the world admits, should confer no honour on the discoverer? The name of Sataspes still lives in the same page of Heródotus, whom Xerxes put to death because he attempted

[329] See Renaudot upon Bergeron. Two Arabs. Discourse, p. 142. Sir John Chardin, ibid. 146.

[330] The Arabick name for the compass is Bussola, evidently Italian. Concerning the Chinese instrument there is some obscurity. The Chinese themselves claim the invention 1120 years before the Christian æra; and from China some say it was brought by Marco Polo, but he does not mention it himself, and it is therefore most probably a fiction. Ramusio, in the Discourse or Declaration prefixed to M. Polo, is clearly of opinion, the compass was unknown in India and China.

a similar circumnavigation in vain, from the straits of Gades; and the following page celebrates Skulax[331] of Caryanda who passed from the Indus into the Gulph of Arabia, to the point[332] from whence the Phênicians had commenced their expedition. I have as little faith in the voyage of Skulax as in that of the Phênicians; but it is unjust that Darius should suffer the name of the inferior to survive, while Neko should totally suppress the fame of the superior. The great argument[333] against both is the total failure of all consequences whatsoever, the total want of all collateral evidence, and the total silence of all other historians but those who have copied from Heródotus. And in his account the narrative closes with a sentence, which if it were not otherwise interpreted by his most excellent and learned editor, I should consider as throwing a tint of suspicion over the whole[334].

The sentence in one view seems to intimate that the Carthaginians had circumnavigated Africa as well as the Phênicians; and if that be its real import, it can only allude to the voyage

[331] Larcher as strenuously maintains these voyages as Robertson denies them. Gossellin denies them likewise, and Paolino asserts them. See p. 240. of his work, Italian ed.

[332] If Skulax were the author of the work we have under his name, and performed this voyage from the Indus to the point where the Phênician voyage commenced, he must have heard of this Phênician voyage, and their circumnavigation; but he denies the possibility of all circumnavigation: consequently it is either not the same Skulax, or Skulax did not perform this voyage.

[333] Ἓτι μὲν δὴ τοὺς πάλαι τοὺς πρὸ τῆς ἡμετέρας λέγει μνήμης, οὐδὲν ἐμοὶ μέλει περὶ ἐκείνων, ὅτι δὲ οὐ ἔπλεον ὅτι ἢ μή. Strabo, p. 48. If reference is made to ancient navigators, prior to the memory of man, I have no concern with them, whether they sailed round the continent or not.

[334] The passage is, Μετὰ δὲ Καρχηδόνιοί εἰσι οἱ λέγοντες ἐπὶ Σατάσπης γε ὁ Τεάσπιος· where Pauw reads οἱ πλέοντες, and which Wesseling calls an hariolation, but adds, Carthaginienses enim similibus defunctos navigationibus, tentasse oras Africæ Atlantico mari aspersas, de Sataspe nihil eos novisse. *Quæ docti viri conjectura habet, quo se commendet,* lib. iv. 298. But he renders it otherwise himself, and very harshly: Larcher follows Wesseling.

of Hanno [335], which might have been deemed a circumnavigation in the age of Heródotus as readily as in the age of Pliny; and if so, it would invalidate the Phênician account as much as the Carthaginian; for if the Carthaginian voyage were false, as we know it is, the Phênician could hardly be true.

This argument, indeed, is not to be insisted on, nor the oblivion to which the name of the commander is consigned, but the difficulties of the voyage itself, the want of means to surmount them, the failure of consequences, and the silence of other historians, are objections not to be set aside without stronger evidence on the other side than has yet been produced.

But as it is not in our power to prove a negative, let us now examine the positive testimony of other authors in opposition to that of Heródotus. The author of the Periplûs says directly, that the ocean never was explored on the eastern side to the point of Africa. Hanno gives no intimation of any one having sailed farther than himself on the western side, and Skulax [336], who traces the Carthaginian commerce to Cernè, maintains not only that the sea to the southward was unexplored, but that it was not passable [337]. The last author we shall adduce is

[335] Wesseling doubts very justly whether the voyage of Hanno is prior to Heródotus. I can affix no date to it, but am not satisfied with Campomanes's date. Olym. 93. Vossius thinks it prior to Homer. Strabo, p. 48. speaking of the African voyages of the Carthaginians, says, Μικρὸν τῶν Τρωικῶν ὕστερον.

[336] The work which bears his name.

[337] Though this is not true, yet his mention of the weeds which obstruct the passage is a circumstance which d'Anville has seized to prove the reality of these Carthaginian voyages to the south. Such weeds do occur, and do impede a ship's way, if she has not rather a brisk wind, from 20° to 34°. Sargasso is a herb, resembling one that is found in the wells of Portugal, not unlike Samphire, with empty berries like gooseberries, but less. It is found far off at sea, not near shore; and a ship requires a good wind to get through it. Purchas, i. 782.

They occur also at the mouth of the Benin river, in latitude 6° north. See New Sailing

Ptolemy, who certainly must have been acquainted with Heródotus, however ignorant we may suppose Hanno, Skulax, or the merchant of the Periplûs. And Ptolemy is so far from believing the report of Neko or the Egyptians, that he not only supposes the voyage never performed, but renders it impossible; that is, he brings round the continent of Africa unbroken with a sweep to the east, till he makes it join the continent of Asia to the eastward of the Golden Chersonese.

False as this hypothesis may be, it is still a contradiction direct to Heródotus; for though it proves that Ptolemy was himself ignorant of every thing beyond Prasum, it proves likewise that he believed all pretensions to a progress farther south fabulous; and that where all knowledge ceased he had a right to an hypothesis of his own as well as others. D'Anville supposes that Ptolemy assumed this system from the prevailing idea among the ancients, that there ought to be Antípodes in the south, correspondent to those of the northern hemisphere. Perhaps also a counterbalance of continents was as favourite a notion in the early ages as in the modern. But however this error originated, the conclusion of d'Anville is remarkable[338]: "Nothing," says he, "was less ascertained among the ancients, "if we may judge from Ptolemy, than the account of some "voyages which were said to have been effected round the "continent of Africa by the south." And parallel to this is

Direction for the coast of Africa, p. 64. But even this seems too far south, as Skulax says it is only twelve days' sail from the Columns of Hercules to Cernè. This would even fall short of Arguin. Hanno reckons only 6½ days to Cernè.

See also Nearchus apud Ar. in fine. See Voyages qui ont servi à l'etablissement de la Compagnie des Indes, vol. i. p. 271. Weed about C. Verde, called Salgasso. Cette herbe couvre tellement la surface de l'eau qu'on a de la peine a la percevoir, & les vaisseaux ne peuvent passer a travers que par un vent frais.

[338] Geog. Ancien. tom. iii. p. 68.

the opinion of Vossius[339]: "Certain it is, whatever may be said "to the contrary, that the ancients were so far from passing "the Cape of Good Hope, that they never approached it." Both these opinions are likewise supported by Strabo[340], who says, "that all who have attempted this navigation either from "the Red Sea or the Straits of Gades, have returned" [without effecting their purpose]; and yet Strabo, while he asserts this, is as perfectly assured that Africa was circumnavigable, as Heródotus. In collecting these opinions of Ptolemy, Strabo, Polybius, Skulax, Purchas, Gossellin, Robertson, and d'Anville, I feel myself supported by the greatest authorities ancient and modern. It is no affectation of singularity, no admiration of novel doctrines, no ambition to invalidate the records of history, that could have induced me to question the veracity of Heródotus. I hold it still indubitable and unimpeached, wherever he speaks from knowledge, and whenever his authorities are sufficient; but the mendacity of Egyptian priests is manifest to this hour in his works. He does not himself scruple to attest this upon other occasions; and it is to be lamented that he suffered himself to admit their evidence in the present instance. It is not unreasonable to suppose that the extent of Africa was as much unknown in the time of Neko as it was to Pomponius Mela and Juba. Pliny likewise was so destitute of information on this subject, as to describe the course of Eudoxus from the Red Sea to Gades by a line, which M. Gos-

339 Vossius ad Melam, p. 303. Polybius, lib. iii. c. 38. is of the same opinion. Rennell Geog. Herod. p. 714. Καθάπερ δὲ καὶ τῆς Ασίας καὶ τῆς Λιβύης καθὸ συνάπτουσιν ἀλλήλαις περὶ τὴν Αἰθιοπίαν, ἄδηλος ἔχει λέγειν ἀτρεκῶς ἕως τῶν καθ' ἡμᾶς καιρῶν πότερον ἤπειρός ἐστι κατὰ τὸ συνεχὲς τὸ πρὸς τὴν μεσημβρίαν, ἢ θαλάττῃ περιέχεται. Whether Asia and Africa are united in the vicinity of Ethiopia, is a question that no one has hitherto determined to a certainty. It is still a problem whether both together form one continent, or whether Africa is surrounded by the ocean.

340 Lib. i. p. 32.

sellin shews must have passed through the centre of the continent. Some delusion of this sort made the priests think a circumnavigation practicable. To crown the possibility with the performance was an advance which cost them little.

PTOLEMY.

XXV. It has been already shewn by the table, that there is a general correspondence between Ptolemy and the Periplûs, and their disagreement in particulars is not imputable to the authors themselves, but to the age they lived in. In that age the geographer did not navigate, and the navigator had no science [341]. The geographer calculated by degrees without observation [342]; the navigator reckoned by his day's course. Modern navigators correct their dead reckoning by observation; but in the early ages science and practice had little connection: and yet so far from there being any charge of error or negligence in this, that it is exactly the reverse. We are not to condemn the mistakes of Ptolemy in longitude or latitude, but to revere the science, which applied the phenomena of the heavens to the measurement of the earth. The navigator of the present hour is conducted on principles first established by Ptolemy. The errors of his maps can no longer mislead, while his principle must be of the same duration as navigation itself. I call the principle Ptolemy's, because he fixed it and brought it into use. Thales and Anaxágoras knew that the world was

[341] Every seaman knows that his dead reckoning amounts to nothing till it is corrected by observation.

[342] Ptolemy, lib. i. c. 9. tells us expressly that he had no accounts to be depended on, οὐκ ὄυσης δὲ τοιάυτης ἱστορίας, and therefore collected his latitudes from similar productions in the opposite hemispheres.

a sphere. Eratósthenes drew the first parallel of latitude at Rhodes, and first measured a degree of a great circle upon the earth; Hipparchus taught that the measurement of the heavens was applicable to the earth. And Dióscorus and Marínus [343] are both said by Ptolemy to have delineated maps on principles similar to his own; though we may judge what these were, when he says that Marínus had the latitude of some places and the longitude of others, but scarcely one position where he could ascertain both. But if Ptolemy objects to the method of Marínus, we are compelled to object to the method Ptolemy used to correct it; for he says, that in going down the coast of Africa, Marínus reckoned by the days' course of the voyagers, and finding these carried Prasum to 35° south, he shortened the estimate, and placed that promontory under the tropick of Capricorn. He then enters into a long argument to prove the insufficiency of this standard, and forms another for himself, by considering the productions of nature as similar, at equal distances, on both sides the equator; a standard certainly not less vague; and yet on this ground, and no other, he fixes Prasum in latitude 15° 30′ south. Now there is a very remarkable coincidence attends the conclusion of both these geographers; for the Prasum of Ptolemy is precisely at Mosambique, and that of Marínus at Cape Corrientes; and it is still more extraordinary that Mosambique should be the last [344] of

[343] Marínus is to Ptolemy what Eratósthenes is to Strabo; both of them the best writers previous to their own inquiries, and therefore in correcting the best of their predecessors, both Strabo and Ptolemy mean to conclude all inferior geographers. Marínus was a Tyrian, and if his work had been preserved, must have been of great service; for he had examined the history of preceding ages, and all the information of his own time; comparing and rectifying them as he proceeded in his own account. Ptol. lib. i. c. 6.

[344] There were Arabs lower down at Sofala, but Mosambique may well be styled the last of their colonies.

the Arabian settlements in the following ages, and Corrientes the limit of their knowledge.

From all the evidence I can collect, and all the circumstances I can combine, I find it impossible to ascertain the site of Prasum [345]; but I have no hesitation in carrying it farther to the south than d'Anville does, or in fixing Corrientes as the farthest possible boundary to all the knowledge of the ancients. The detail of Ptolemy goes to Rhaptum, and no farther; so far he had journals, and the relation of navigators to conduct him; beyond that, the voyage did not in its regular course extend; and if single vessels had at any time been carried to Prasum, by the winds and currents, it was accidental. But it should seem that it was heard of from the natives, or the Arabs, rather than seen, as all circumstances and particulars end with Rhaptum; and the remainder consists of a single step to Prasum, that is, near seven degrees, without mention of a port, an anchorage, or a single feature of the coast.

One thing, however, is certain, that the name of Prasum is familiar to Marínus, who is prior to Ptolemy, and is not known to the author of the Periplûs. If, therefore, Ptolemy lived in the reign of Adrian, and we have an intervening writer between him and our author, we cannot err more than a very few years in assigning the date of the Periplûs to the latter end of the reign of Claudius, or the beginning of that of Nero. There is

[345] There are some coincidences so extraordinary, and some contradictions so strong, that the choice is wholly at a stand. Ptolemy condemns Marínus for making five thousand stadia, i. e. five hundred miles between Rhaptum and Prasum; and yet he himself makes it seven degrees. But if they approximate in this, their difference is still irreconcilable; for Marínus's Prasum is in 23° south, and Ptolemy's in 15°. Marínus's line of coast tends directly to the south or south-west, Ptolemy's to the east. ἀπὸ δὲ ἀνατολῶν τῷ Ῥάπτῃ Ἀκρωτηρίῳ, p. 115.

a Diodôrus Samius[346] mentioned in Ptolemy from Marínus, who notices the course held by vessels from the Indus to the coast of Cambay, and from Arabia to the coast of Africa[347]. He asserts that in the former voyage they sailed[348] with the Bull in the middle[349] of the heavens, and the Pleiades on the middle[350] of the main yard, in the latter that they sailed to the south, and the star Canóbus[351], which is there called the Horse. I can find no mention of this Diodôrus Samius in any other author; but whoever he is, if the date of his work could be fixed, it would go farther to ascertain the progress of the ancients, the navigation of Hippalus, and the account of the Periplûs, than any discovery I have been able to make. I have reasoned only from the materials before me; and if future inquiry should develope Diodôrus, it is not without great anxiety that I must abide the issue of the discovery.

Another circumstance highly worthy of attention is the argument of Ptolemy[352], to invalidate the estimate of a day's course. The usual estimate he states at five hundred stadia for a day, and a thousand for a day and night; he then mentions, from Marínus, a Diógenes who was one of the traders to India, and who, upon his return, in his second voyage, after he had made

[346] Whether Samius is a proper name or signifies the Samian, may be questioned.

[347] Ptolemy, lib. i. c. 9. Azánia the coast below Cape Gardefan.

[348] There is something very like this in the Arabian way of sailing in 1440. See Nicola de Conti in Ramusio, ii. p. 344, 345. See also the Voyage de Gentil, tom. i. p. 64. Le 10me Avril, etant à 30° 45′ de latitude, et environ 16° à l'est du Cap de Bonne Esperance, un quart d'heure avant le coucher de soleil, j'aperçus une Etoile qui *frisoit la vergue* du grand perroquet, [a star which *quivered on the yard* of the top-gallant mast,] je reconnus que c'etoit Canópus.

[349] Μεσουρανοῦντα.

[350] Κατὰ μέσην τὴν κεφάλαιαν.

[351] If by this it is meant that they steered by Canóbus as a south polar star, it must have led them into great error; for that star is above 37° from the south pole. It is on our English globes nearly in south latitude 52° 30′ 0″; in Gossellin Recherches, tom. ii. p. 39. 51° 22′ 0″.

[352] See lib. i. c. 9.

Arômata[353], was caught by the north-east wind, and carried down the coast for five-and-twenty days, till he reached the lakes from whence the Nile issues[354], that is, nearly to Rhaptum[355]; he then adds, that Marínus mentions one Theóphilus who frequented the coast of Azánia, and who was carried by a south-west[356] wind from Rhapta to Arômata in twenty days. From these facts[357] Ptolemy argues, that as five-and-twenty days are attributed to the shorter course, and twenty to the longer, there can be no stated measure of a day's course to be depended on. I must own that to my conception they prove exactly the contrary; for though a day's course is certainly in-

[353] It may be proper to examine the monsoon upon this question.

[354] That there is a great lake inland from the coast of Ajan, is a report of which we find traces in almost all the acounts ancient or modern; but where to fix it, or what it is, seems by no means ascertained. D'Anville notices such a lake on his map of Africa, and conjectures that it may be the source of the Obii, which issues at Ampaça and Patè. Ptolemy here makes it the origin of the Nile, and places it in 10° south *, and the Nubian geographer carries to 16°, which is the latitude of the Lake Maravi, while the source that Bruce visited is in 12° north. Two-and-twenty degrees is surely too great a difference to suppose between the head of the White and the Blue River: neither is it probable that any source of the Nile should be south of the mountains of Abyssinia, which Rennell now says are part of the great Belt that divides Africa; this indeed is not impossible, as the Indus and the Ganges both cut the great Belt of Asia; but it is highly improbable, on account of the vast space between. Neither does it make Ptolemy consistent; for though d'Anville still preserves Ptolemy's sources of the White River in his map, and Rennell does not discard them. The lakes of those sources are placed in 6° north by d'Anville, and in a very different longitude from Ptolemy's, while this lake of Ptolemy's is in 10° south. And here d'Anville has a lake also, but of which he speaks with great uncertainty. See Ptol. lib. i. c. 9. But Ptolemy, in the 17th chapter, expressly states that this lake is not near the coast but far inland. D'Anville's earliest notice of this lake, called Maravi, is in a map which he composed for Le Grande's translation of Lobo, in 1728.

[355] Ptolemy says, the Promontory of Rhapta was a little to the south-west.

[356] The south-west monsoon.

[357] The facts are so curious that I have great pleasure in stating them to the reader, and proposing them to the consideration of any English officer who may be accidentally brought on this coast. I must notice also that Diógenes and Theóphilus are both Greek names; a leading proof that even under the Romans, this trade was chiefly in the hands of Egyptian Greeks.

* The lakes in Ptolemy are from 7° to 10° south. The sources of the Nile in 13° south.

definite, where winds are variable, we now know that both these voyagers must have been carried by the two opposite monsoons, and that Diógenes lost his passage by not arriving at Gardafui early enough to get into the Red Sea; consequently he was hurried [358] down to the south, and could not get into port till he was somewhere about Patè or Melinda. The difference itself of twenty-five and twenty days is not so great as to insist upon with severity, and we must likewise add, that both voyages seem in consequence of surprize, and not the ordinary course of the navigation. Mariners do not now, and certainly could not formerly, reckon by an individual, but a general run; and when they are in the sweep of the trade winds or the monsoons, though the force of the wind is not perfectly or constantly equal, it is so generally subject to calculation, as to vary but a few days in very extensive passages. This sort of estimate all seamen have in such voyages, and on such coasts as they frequent. And those who know how nearly the computation of seamen approaches to the truth, will certainly allow more precision in the accounts of Marínus and the Periplûs before us, than Ptolemy is willing to concede. On this point we have a most remarkable coincidence to notice; for as Marínus states the passage of Diógenes from Arômata [359] to the lakes at five-and-twenty [360] days, the Periplûs assigns exactly the same number from Opônè [361] to Rhaptum upon a distance as nearly equal as possible. The conclusion from this is

[358] He was carried away by the Aparktias, that is, the north-east monsoon.

[359] From Gardafui to Melinda or Patè.

[360] The day's course from Arômata to Rhaptum amounts to eighteen in Ptolemy, with an omission of Opônè; and if for this omission we should add the six days specified, lib. i. c. 17. the amount in Ptolemy would be twenty-four days, not very different from that of Theóphilus Diógenes, or the Periplûs.

[361] From d'Affui to Quiloa.

incontrovertible; for it has already been shewn, that the courses of the journal agree with the actual extent of the coast, and if the passage of Diógenes agrees with the day's courses, it is impossible to admit the scepticism of Ptolemy.

But, from his rejection of the estimate, we may proceed to his contradiction of the facts; for in his seventeenth chapter he controverts the whole account of Marínus [362], and as far as we can collect, his account was in union with the Periplûs. The reasons for admitting the statement of the Periplûs are contained in the whole of the preceding pages. The reason for doubting Ptolemy is, that his account is not consistent with his own detail of the coast [363], nor consonant to the knowledge of it, which we have at present. He sets out with saying, that the merchants who trade between Arabia Felix and Arômata, Azánia, and Rhapta, give a different statement from that of Marínus. They mention that the course from Arômata to Rhaptum is south-west; but from Rhapta to Prasum south-eäst. This indeed would hold good for a small bend of the coast, but upon the seven degrees which Ptolemy assigns to the interval, it is directly false; for the general inclination from Gardefan to the Cape of Good Hope is south-west upon the whole; and this turn which he assumes to the south-east, seems only to prepare it for the curve he gives it all round the Antarctic Ocean. He then adds, that the village Panôn is next to Arômata, and that Opônè is six days from Panôn. If there be not a corruption of

[362] I had once conceived an opinion that Marínus might be the true author of the Periplûs, from finding his great agreement with it, and that the objections which Ptolemy brings against Marínus in the seventeenth chapter apply very nearly to the Periplûs. But I am convinced this opinion cannot be defended, for Marínus was no navigator, but a geographer; and Marínus knew or had heard of Prasum, which the author of the Periplus certainly had not.

[363] Page 112.

the text here, or a great error in our construction of it, this is in direct opposition to his own table as well as the Periplûs. For his table gives only five minutes difference between the latitude of the two. He next mentions Zengísa, Mount Phalangis, and the bay called Apókopa, which it requires two courses of twenty-four hours to pass. Then the Little Coast of three similar courses, and the Great Coast of five; then two more to Essina, one to Serápion, and three more across a bay to Rhapta. Niki, he adds, lies at the commencement of this bay next to Serápion. And last of all he notices a river called Rhaptum, with a city of the same name, the metropolis of Barbaria, with a vast bay which must be passed to reach Prasum, where the sea is very shoal[364], and round Prasum is the country of the Anthropóphagi. Now the meaning of this language, if I understand it right, is, that at Rhaptum is the last settlement of the Arabs, and that Prasum is in the country of the Negroes, for so I interpret Anthropóphagi. This is not expressed indeed, but is so perfectly consistent with the Periplûs that it can hardly be disputed.

The difference that there is between this detail of the coast and that of the Periplûs, will be best seen by consulting the table; but whatever it may be, it contributes more to establish that journal by its general concurrence, than it detracts from it by disagreement in particulars. It appears to me, whether from predilection to my author, I cannot say, that Ptolemy had a journal before him but a worse. I see the correspondence between the two, but more consistence in the Periplûs. I see likewise more circumstances in this, more characters, and more

[364] So also says Marcian, Βραχεῖα θάλασσα, p. 8.

intelligence, which persuades me that it is written by one who performed the voyage, while Ptolemy relates the report of others. The reasoning, therefore, which he builds on this, to correct Marínus, appears of less weight; for we find all the distances of the Periplûs correspondent to the actual nature of the coast at present; and whatever failure there may be in the application of it to particulars, the leading characters, such as the Straits of Bab-el-Mandeb, Ras-Feel, Gardafui, Daffui, Cape Baxas, the Coast of Seven Rivers, and the Zanguebar Islands, are so clear and manifest, that the outline may be considered as perfect, whatever error there may be in the filling up. To my own mind the evidence is complete; but every author who compiles from the labours of others, without visiting the countries of which he treats, must subject the speculations of the closet to the determination of navigators on the spot. To this law I submit my inquiries most chearfully, soliciting information without fear of the result, and ready to stand corrected by every intelligent officer who will make this work the companion of his voyage. One farther observation is all that remains in this part of my discussion, which is, the peculiarity that Prasum, signifying Green, should point out a green cape for the termination of ancient knowledge on the eastern side of the vast continent of Africa, while another Green Cape (Cape Verd) should have been for some years the boundary of modern navigation on the western side. If I am not mistaken, Cape Verde has its name from its verdant appearance when first seen by the Portuguese; otherwise it might have been thought that those who first reached it had annihilated the great triangle like Juba and Pliny, and thought they had ar-

rived at the Green Cape[365] of the ancients. This will not appear an idle observation to those who are conversant with the ancient geographers, and who know that they found, as already noticed, a Western Horn and Cernè[366] on both sides the continent, and a Thulè from the Orkneys to the Pole. But there is another view in mentioning it, which is, that some future navigator, with this clue to direct him, may, when he is going up the Mosambique passage, still find some characteristick greenness, either in the colour of the sea, or on the continent, which may enable him to point out the Prasum of the ancients. This is a point I am not able to ascertain to my own satisfaction, but it cannot be farther south than Corrientes, nor farther north than Quiloa or the Zanguebar Islands. English ships generally leave the coast before they are so far north, but accident may carry some curious observer to the spot, which he may recognize, by knowing previously where he is to search, and what he is to search for.

DISCOVERIES[367] OF THE PORTUGUESE.

XXVI. With vessels of the most perfect construction to encounter all the dangers of the sea, with instruments of all

[365] Πράσον signifies a Leek, but it is also used for a sea weed of the same colour, and may possibly allude to such weeds found in this sea.

[366] Cernè is evidently an eastern isle in Lycophron, Lin. 18. where Aurora leaves Tithonus on his eastern couch at Cernè. But see Dionys. Perieg. Eustath. ad v. 218.

[367] There are two strange particulars in Al Edrissi: the first, of gold thrown up by the sea in a storm at Lisbon; the second, of eight men, all related, who set out upon an expedition of discovery on the *Dark* Sea, Mare Tenebrosum, i. e. the Atlantick. They went first west, and then south, and at last reached Asfi, which seems to be in Africa, and oppo-

kinds to ascertain the place of the vessel, with officers equal to every service, not only from their intrepidity but their skill, a voyage performed in three years from Europe to the Red Sea, round such a continent as Africa, for the first time, would have added no small degree of lustre even to the reputation of a Cook: and yet such a voyage is imputed to the Phênicians in an age when they had neither charts or instruments, when they had no vessels fit for a navigation beyond the Red Sea, or the limit of the monsoons. But to judge of the difficulty of such an undertaking for the first time, we cannot form our estimate upon better grounds, than by a brief recapitulation of the obstacles surmounted by the Portuguese, and by observing that the attainment of the same object cost them almost a century, which the Phênicians are said to have reached in the short space of three years.

Of the progress of this discovery it will be necessary to trace little more than the dates[368]. Prince Henry, fifth son of John the first, king of Portugal, took up his residence at Sagrez[369], near Cape Saint Vincent, about the year 1406[370]. The history of his discoveries is familiar to every one, but, like the history of all others who are the favourites of mankind, it is not sufficient to give him his due merit, which is superlative, but it must be enhanced by hyperbole. It is not true that in his day there was no geography but in the poets[371], that he is the in-

site to the Canary Islands. See Al Edrissi, pp. 72. 158.

A story relative to the Golden Tagus, and a story relative to the first navigation of the Atlantick, are coincidences with the history of Portugal very extraordinary.

[368] See Faria and Osorius in init. Barbosa and Alvarez in Ramusio, Bruce, Mickle's Lusiad, and Castaneda.

[369] At Reposera near Cape Saint Vincent. Cadamosto, p. 3.

[370] The Canaries were revisited in 1405. Galvan. in Purchas, ii. 1672.

[371] Bruce and Mickle.

ventor of the astrolabe[372], and the compass, or the first that put these instruments into the hands of mariners: but he was bred a mathematician, and he procured the best charts and best instruments the age afforded. He improved upon or corrected every one of them, and he taught[373] the application of them in the best manner to the commanders employed in his service.

This great man, with one object always in his mind, distracted by no other cares of the world, never married[374], never incontinent, was determined, by his regard to religion, to subvert the power of the Mahomedans, and by the love of his country to acquire for her that trade which had enriched Venice and the maritime states of Italy. These were his views, and this was his merit. It was not accident but system that carried the fleets of Portugal to the East Indies, and Columbus to the West. When Henry first commenced his operations, Cape Nun, in latitude 28° 40′ 0″, was the limit of European knowledge on the coast of Africa. This Cape is just beyond the boundary of Morocco, and the Portuguese knowledge of it was derived from their wars with the Moors of Barbary. Commencing the line of his discovery from hence, in 1418 two of

[372] See on the Astrolabe, note infra.

[373] I cannot help mentioning a circumstance which contributes much to our national honour. Pietro della Vallè, who sailed both in English and Portuguese ships in the East Indies about 1620, observes that the Portuguese masters and pilots made a mystery of their knowledge, whereas in the English ships all the youths on board were summoned to take the observation at noon; their books and calculations were then likewise corrected. Purchas mentions this in some instructions given by the merchants to the commanders they employed; and here, perhaps, we may trace a cause why the science has always been increasing among the English, and declining among the Portuguese.

[374] Cadamosto apud Grynæum, p. 1. Matrimonii expers, adolescentiam suam mirâ castitate honestavit.

his officers reached Cape Boyador, in latitude 26° 30′ 0″. The same effort restored to geography [375] the Canaria of Pliny, or gave that name to the islands which retain it still, and lie between Nun and Boyador. Boyador, however, was not doubled till 1434. It was, says Faria, a labour of Hercules; and it was not till 1442 that the discovery was advanced to Rio-del-Ouro [376], under the tropick of Cancer. This name points to the acquisition of gold; and history mentions that the dust of that precious metal was here first offered as a ransom for some of the natives who had been taken prisoners. Upon the return of these vessels to Portugal [377], the sight of gold produced an emotion much more effectual than all the exhortations of Prince Henry had been able to excite; a company [378] was immediately formed at Lagos, and the progress of discovery was ensured whether Henry had lived or died. This is the primary date to which we may refer that turn for adventure which sprung up in Europe, which pervaded all the ardent spirits in every country for the two succeeding centuries; and which never ceased till it had united the four quarters of the globe in commercial intercourse. Henry had stood alone for almost forty years, and had he fallen before these few ounces of gold reached his country, the spirit of discovery might have perished with him,

[375] D'Anville has endeavoured to identify the Canaries with the Fortunate Islands; and I do not doubt the fact, for these islands were found inhabited: a circumstance arising from their being visible from the continent.

[376] That the desire of discovery might be more increased, says Galvan. Purchas, ii. p. 1675.

[377] Bruce observes, this must have come from the country farther south, vol. ii.

[378] It will appear hereafter that a John Diaz was one of the first partners of this Company, and from him several of the family were employed in the future discoveries, till the time of Bartholomew Diaz, the first circumnavigator of Africa, in 1487. Thus was the connexion formed between the discovery of Rio-del-Ouro and the Cape of Good Hope.

and his designs might have been condemned as the dreams of a visionary; but he lived till 1463, and in the years 1448 and 1449 had the satisfaction to see his discoveries extended to Cape Verde, (in latitude 14° 45′ 0″,) to the Cape Verde islands and the Açores. This cape was likewise doubled, and some progress is supposed to have been made as far south as the equator, but Cape Verde, or at farthest Rio Grande, may be considered as the limit of Henry's discoveries. He is deservedly [379] celebrated by all writers as the reviver of navigation, and the great founder of that commerce which has raised the maritime power of Europe above all the other nations in the world.

After the death of Henry his designs languished during the reign of Alonzo, but the spirit of adventure was not suppressed. In 1471 the discoveries extended to Cape Gonzales beyond the equator, and terminated with this reign at Cape Saint Catherine, in latitude 2° 30′ 0″ south [380]. John the second succeeded to the throne in 1481; and revived the pursuits of Henry with all the ardour of their author. In 1484 his fleets reached Congo, and penetrated to 22° south. It was in Benin that the first [381] account of Abyssinia was received, and nearly about the same time John sent out Bartholomew Diaz with three ships, who first circumnavigated the extreme point of Africa, and dispatched Covilham in search of India by Egypt and the Red Sea. The date of Diaz's expedition is fixed in 1486, nearly eighty years after the commencement of Henry's

[379] Mickle xxxix. from Faria, vol. i. p. 21. See his character, p. 18.

[380] Faria, vol. i. p. 20, 21.

[381] This must be understood of the report on the western side of Africa; on the eastern side, M. Polo had heard of it in the thirteenth century.

plan, and the expedition of Covilham is assigned to 1487 [382]. I have recapitulated these facts and dates not for the purpose of repeating a history known to every one, but that the reader may compare the difficulty of prosecuting this discovery by the Portuguese, with the facility attributed to the attempt of the Phênicians, in their three years' navigation.

But Covilham [383] is a name of such importance, his history so extraordinary, and his account so connected with the Periplûs, that to pass him in silence would be an unpardonable omission. John II. in the beginning of his reign had sent two friars, one of the order of St. Francis, and the other John of Lisbon, with a third who was a layman, into the East [384], in order to discover India by land. These travellers went, for want of the Arabick language, no farther than Jerusalem. In the year 1486 or 1487 [385], he therefore sent John Pedreio de Covilham and Alonso de Payva on the same service; and after them two Jews, Abraham of Beja and Joseph of Lamego. As nothing can shew the solicitude of the king more than these circumstances, so nothing can prove his penetration more than this choice of Covilham; he was a soldier, who had served in Africa; he had been after that ambassador to Morocco, and had acquired the Arabick language to perfection. In obedience to his sovereign he departed from Lisbon [386], and took the route

[382] These dates are of consequence; because Bruce, vol. ii. p. 108. supposes Diaz to have sailed in consequence of Covilham's intelligence, which is directly contrary to the testimony of Faria, Castaneda, Alvarez, and Mickle. When Covilham wrote he certainly did not know of Diaz's success.

[383] Called de Covilham from the name of his birth place. Osorius always writes John Petreio. See vol. i. p. 147.

[384] Castaneda, p. 2.

[385] I collect that Covilham entered Abyssinia in 1488 from Alvarez in Ramusio; for Alvarez says he confessed him in 1521, thirty-three years after he had entered the country.

[386] Alvarez in Ramusio, vol. i. p. 191. 237. et seq.

of Barcelona and Naples, and thence by Rhodes and Alexandria to Cairo. He there joined a party of Mograbin [387] Mahomedans, and went in their company to Tor, Suakem [388], and Aden. At Aden he embarked for Cananor on the coast of Malabar, and visited Ormuz, Goa, and Calicut. He *saw* the pepper and ginger [389], *he heard* of cloves and cinnamon. After this he returned to the coast of Africa, touched at Zeila, and went down the coast as low as Sofala, the last residence of the Arabs, and the limit of their knowledge in that age, as it had been in the age of the Periplûs. The Arabs of Covilham's age knew indeed that the sea was *navigable to the south-west*, as their earlier countrymen did when the author of the Periplûs was in the country, but they *knew not where it ended*. With this intelligence, and what he could collect of the Island of the Moon, or Madagascar, he returned by Zeila, Aden, and Tor to Cairo. At Cairo he met the two Jews, Abraham of Beja and Joseph of Lamego, by whom he sent an account of the intelligence he had collected to the king, and in the letter which contained it, he added,

"That the ships which sailed down the coast of Guinea "might be sure of reaching the termination of the continent, "by persisting in a course to the south; and that when they "should arrive in the Eastern Ocean, their best direction must "be to inquire for Sofala and the Island of the Moon."

It is this letter above all other information which, with equal justice and with equal honour, assigns the theoretical discovery

[387] Moors of Barbary, Western Arabs.

[388] סוכים, Sukiim = cavernæ. Bochart portus Troglodytarum.

[389] What a testimony do these two words bear to his veracity, and what a variety of connected circumstances do they suggest to those who know the country, the trade, and the designs of John? Alvarez seems to write what Covilham dictated. Alvarez, p. 237.

to Covilham [390] as the practical to Diaz and Gama; for Diaz returned without hearing any thing of India [391], though he had passed the cape; and Gama did not sail till after the intelligence of Covilham had ratified the discovery of Diaz.

Covilham was not to receive the reward of his services; one part of his commission he had not executed, which was, to visit Abyssinia; he returned, therefore, from Cairo to Ormuz, and from Ormuz once more to Aden, where he waited till he found the means of obtaining admission into Abyssinia. Here he was received with kindness, but hence he was never to return: for in Abyssinia he was found by Alvarez [392] the almoner to the embassy of John de Lima, in 1525, who observes that the king had procured him a wife and assigned him lands, and that he was beloved by the people as much as by the sovereign. All this, however, had not reconciled him to the country. He solicited John de Lima, and John interceded with the king to suffer him to return with the embassy, but all his solicitations were in vain. I dwell with a melancholy pleasure on the history of this man, (whom Alvarez describes still as a brave soldier and a devout Christian,) when I reflect upon what must have been his sentiments on hearing the success of his countrymen, in consequence of the discovery to which he so essentially contributed. *They* were sovereigns of the ocean from the Cape of Good Hope to the Straits of Malacca; *he* was still a prisoner in a country of Barbarians.

There is a circumstance attached to the history of Covilham of great geographical importance, which is the map or chart

[390] The whole of this is confirmed by de Barros. Dec. i. Liv. iii. c. 5. p. 196. See the account of a map, p. 198. which seems to be collected from Marcos, the priest of Abyssinia.

[391] Castaneda, p. 2.

[392] See the work of Alvarez in Ramusio, vol. i.

committed to his charge by Emanuel, at that time prince [393] and afterwards king of Portugal, which was copied and composed by the licentiate Calzadilia, afterwards bishop of Viseo, a doctor Rodrigo, and a Jew named Moses, with great secrecy in the house of Peter of Alcazova. This map was put into Covilham's hands, with orders to make his way, if possible, into Abyssinia, and discover whether there was a passage round the extremity of Africa, which the framers of this map asserted to be practicable, on the authority of some obscure information which they had collected.

To the two Jews, Rodriguez and Moses, or Joseph, who composed this map, Mickle imputes the invention of the astrolabe; but perhaps the word astrolabe misled him, the primary meaning of which was an armillary sphere. Ptolemy reduced this to a planisphere; and yet the name of astrolabe continued till it became applied to maps like his in stereographick projection. The sea astrolabe is a different instrument, for taking the altitude of the sun, stars, &c. it is a ring with a moveable index. (See Chambers's Dictionary *in voce*.) This last sort of astrolabe is described in Chaucer's treatise on this subject, which bears date 1391: so that if Mickle means this instrument, it could be no invention of the Jewish doctors [394]; and that he does mean it, I refer to his own words [395]. I have not di Barros's work at present, but in Alvarez [396] I find the mention of the map composed by Castadilia and the two Jews. Purchas [397] speaks with much more propriety of the instrument:

[393] Duca. See Castaneda, p. 1, 2, 3. Alvarez in Ramusio, vol. i. p. 236.

[394] See Chaucer, Urry's edition, p. 440.

[395] Lusiad, p. 193. note P. where he cites di Barros, Dec. 1. lib. iv. c. 2.

[396] Ramusio, vol. i. p. 236.

[397] Vol. ii. p. 8.

he says the astrolabe was applied formerly only to astronomical purposes, but was accommodated to the use of mariners by Martin Bohemus, a scholar of Regiomontanus, at the instance of John king of Portugal. The name of Regiomontanus was Muller, who took his Latin title from Koningshoven, according to the fashion of the day. He was born in 1436, and published the Almagest of Ptolemy, dying in 1476. M. de Murr doubts whether Behaim was a disciple of Muller's. The Germans of that day were the best mathematicians in Europe. The astrolabe, as used in the voyage of Magellan, is described by Pigafetta in his treatise on navigation, inserted in Amoretti's edition, with a drawing of the instrument.

The obscure information obtained by Castadilia and his associates was possibly derived from the celebrated map of Venice, drawn up for Prince Henry, in the year 1459, by Fra. Mauro of St. Michael di Murano. This map does exhibit a southern termination of Africa, the knowledge of which was derived from the report of an Indian navigator who had passed it from the east, and is the same as that mentioned by Mickle[398] from Galvan, found by Don Ferdinand, in 1526, in the monastery of Alcobaza, where it is said to be still preserved.

Records of this sort, it is well known, were deposited in the custody of Prince Henry and the kings of Portugal; and from these, instructions were given with great secrecy to officers appointed to command in the prosecution of discovery. Such was the information that Magellan is said to have received from a chart in the king's own possession, drawn up by Martin Be-

[398] P. xxxiv. Introduction.

haim, in which the straits were laid down that Magellan afterwards explored. For this information he carried with him when he withdrew into Spain, on the credit of which he obtained the protection of Cardinal Ximenes, and the command of that fleet which first circumnavigated the world.

How Martin Behaim became possessed of this knowledge is a question upon which the geographers are not agreed; some thinking it a vain pretension set up to detract from the glory of Magellan, and others contending for the real existence of such a chart in the secret repository of the kings of Portugal.

Dr. Robertson and M. de Murr [399] have adopted the former opinion, and found it on the delineation contained in the Nuremberg globe formed by M. Behaim, on which there is nothing between the Azores and Japan but the two fabulous islands of Antilia and St. Brandon.

M. Otto supports the claim of M. Behaim in a memoir transmitted to the Philosophical Society at Philadelphia; and M. Charles Amoretti, who has published the voyage of Magellan from the journal of Pigafetta preserved in the Ambrosian Library at Milan, maintains the same opinion, grounded on the authority of Pigafetta himself, who sailed under Magellan in this expedition.

The passage occurs at the fortieth page of the French translation, nearly in the following words: "The sentiments of every "person in the fleet [after reaching the eastern entrance of "the strait] were, that it had no issue on the west; and no-"thing but the confidence they had in the superior information

[399] The memoir of M. de Murr is subjoined to the voyage of Pigafetta, published by Charles Amoretti of Milan, Paris, 1803.

" of the commander could have induced them to prosecute the " research. But this great man, as skilful as he was coura- " geous, knew that he was to seek for a passage through an " obscure strait: this strait he had seen laid down in a chart[400] " of Martin de Bohême, a most excellent cosmographer, which " was in the possession of the king of Portugal."

On this single passage the whole claim of M. Behaim rests finally for support; for Behaim himself has left no testimony of his discovery, either on his globe, or in the archives of Nuremberg, or in his numerous letters which are still preserved. He does not appear to be the discoverer of the Azores, as he is supposed to be by many writers, but to have married the daughter of Job de Heurter, a Fleming, who carried a colony of his countrymen to those islands. The Azores were discovered in 1431; Behaim was born in 1430. It is true that he resided many years at Fayal; and it is reported that he made a voyage with James Cano in 1483, beyond the equator, which is called entering into another world, and is said to have been prosecuted during more than two years. But the direction of their course was to the east, to Ethiopia as it is called, that is, to

[400] According to Galvan in Purchas, ii. p. 1673. Don Pedro brought home from Venice, as early as 1428, a map which contained both the Cape of Good Hope and the Straits of Magellan; but it proves too much, for it says the Straits of Magellan were called the *Dragon's Tail,* and the Cape of Good Hope was entitled the *Fore Front of Africa.* This is a different map from that of Fra. Mauro, not only by its date, but because the chart in the monastery of Alcobaza is mentioned afterwards. If there were fictitious maps of this sort, Behaim might have seen one; but how America should find its way into such a work, before that continent was dreamed of, is unaccountable. Galvan adds, that Don Henry was much assisted by it. But even at that early period, I think, Prince Henry had much better intelligence.

M. de Murr (p. 351. of his Dissertation on M. Behaim, published by Amoretti) maintains that the two passages attributed to Schedel, 1493, are interpolations. These passages assert the voyage of Behaim with Cano; but in the MS. of Schedel's Chronicle, they are written in a different hand. M. de Murr concludes that there is no other evidence of Behaim's performing this voyage.

Congo; and the cargo they brought home proves it, for it was an inferior kind of pepper, an article certainly never found in the neighbourhood of the Straits of Magellan. Neither is it possible, if Behaim did accompany Cano, that he should have touched upon America; for the date of his globe is 1492, and it contains nothing west of St. Brandon.

But in answer to this Amoretti contends, that though it appears from his globe that he knew nothing of America in 1492, it does not follow that he did not acquire a knowledge both of America and the strait which joined the Atlantick to the Pacifick Ocean, in the interval between 1492 and 1506, which is the date of his death. This is a bold supposition, where the assumed author of the discovery has left no such testimony of himself: a discovery second only, and perhaps equal, to the circumnavigation of Africa.

Still the declaration of Pigafetta is precise, and is entitled to great respect. But if we refer to dates, it is possible that another clue may be found to develope this mystery. Columbus reached America in 1492, which is the exact date of the Nuremberg globe. M. Behaim, therefore, cannot claim any share in his laurels: his own voyage beyond the equator was in 1483, 1484, and directed to the east; he therefore did not discover a western continent in that expedition. Diaz passed the Cape of Good Hope in 1486; Gama in December 1497. Pinzon reached the River of Amazons in 1500, and the same year Brazil was first seen by Cabral. Vespucius Americus discovered the Terra Firma of South America in 1502. Now all these great discoveries, except that of Diaz, fall between the date of the Nuremberg globe, 1492, and the death of Behaim in 1506; and as he was the greatest cosmographer of his age, it

is a supposition much better founded than that of Amoretti, that if M. Behaim made any chart of the new discoveries to the south-west, he might rationally conjecture a passage round the southern point of America, conformable to that round the southern termination of Africa. That a chart of this sort might be in possession of the king of Portugal, and that Magellan[401] might have seen it, is highly probable; but doubtless the passage was laid down from conjecture, as is evident from Pigafetta; for he says, Magellan was determined to prosecute his search after it to latitude 75°[402], had he not found it in 52°. Here, therefore, is an uncertainty of twenty-three degrees, and the existence of the Strait, he adds, was (molto ascoso) very obscure, or much concealed.

Now these circumstances could not have existed if Behaim had visited the southern part of America himself; for he was an excellent cosmographer; he was the corrector of the astrolabe[403], and was as capable of determining a latitude as any of the Portuguese navigators. Had he, therefore, discovered this Strait himself, he never could have left it in any chart he drew, with an uncertainty of twenty-three degrees. But he resided at Fayal from 1493 to 1506, when he returned to Lisbon, where he died. It is very possible that he then brought with him the chart that he gave to the king of Portugal, for Fayal lay in the track of the navigators who went to the south-west on dis-

[401] All those entrusted with commands, or sent on expeditions, by the kings of Portugal, were furnished with instructions from the collections made by the government; if, therefore, Magellan was destined for such a service, he would regularly have had the charts and documents in the king's possession confidentially imparted to him; and this secret he conveyed to the king of Spain.

[402] Pigafetta, p. 46. Ed. Amoretti.

[403] A drawing of the astrolabe, as used in that age by mariners, is inserted in Pigafetta, p. 286.

covery, from whom, it is rational to suppose, he collected the progress that was annually made on the coast of South America; and from the trending of that coast to the south-west, he might readily imagine that it came to a point like Africa. This supposition admits not of proof, but is rational and consistent: it reconciles the testimony of Pigafetta, and shews us how much men of enterprise are indebted to men of science and contemplation.

Martin Behaim is not a man to be compared to Prince Madoc, or those bold pretenders who claimed the discovery of a north-east or north-west passage to the East Indies. He has himself never assumed any pretensions to the discredit of Magellan; and if he did frame a chart for the king of Portugal of this sort, he is entitled to much praise for the sagacity of his conjecture, which detracts nothing from the glory of Magellan, but adds to his merit, as having the courage and perseverance to verify the fact by the test of experiment.

The map of Fra. Mauro and the letter of Covilham both influenced the success of Diaz and Gama; but who ever thought it derogatory to their honour, that they proceeded to their discovery upon previous information? The union of theory and practice is the most solid foundation of all great achievements; and though it is true that more honour will accrue to the performer of great exploits than to the theorist who matured the plan, it is injurious to detract from their respective merits. The victories of Philip and Alexander receive no diminution of their splendour, by referring the constitution of their armies to the tacticks of Epaminondas.

I have been led into this disquisition (no otherwise connected with my subject than as it opened another communication with

India), in order to shew the extreme solicitude of the Court of Portugal in collecting information and concerting measures for the prosecution of discovery: an attention continued for a whole century, and an object attained at last by surmounting a variety of difficulties, none of which occurred to the Phênicians of Neko.

It was in conformity to the same principle that Prince Henry obtained the map of Fra. Mauro from Venice, and other documents in the sole possession of the government. From these the instructions [404] imparted to travellers and navigators were drawn up by the bishop of Viseo and the two doctors, Rodrigues and Moses [405], with great secrecy. A map of this sort was committed to Covilham, when he was dispatched into the East and to Abyssinia; and Covilham is said by Bruce to have sent home from Cairo a map, which he had obtained from a Moor [406] in India, in which the extreme cape of Africa was delineated. That the obtaining such a source of information made part of Covilham's instructions cannot be doubted; but when Bruce adds, that this map contained not only such a cape, but all the cities round the coast exactly represented, it throws a doubt upon the whole; for cities [407] round the coast there are none for

[404] In the instructions given to Covilham it was directed, di passare un di loro nell' Ethiopia a vedere il paese del Prete Janni, et se ne i suoi mari fusse notitia alcuna che si posse passare ne mari de ponente perche li detti Dottore diceveno haverne *trovata non so che memoria.* Doubtless this memoir was Fra. Mauro's map.

[405] Sometimes called Joseph. See De Barras, Dec. 1. lib. iv. c. 2. p. 283. ed. 1783, who writes Joseph.

[406] What sort of charts or maps the Arabs had, as late as 1400, may be seen by the map of the world which I have inserted from Al Edrissi in the Appendix. It is true that Africa has a termination in that map, but it is in the longitude of China, that is, it ends in the Mare Tenebrosum, as every continent must, for that sea surrounded the world.

[407] "Howbeit there appeared unto them no "townes within this land, by reason that "along this coast there are none scituated."

twenty degrees, either on the east or west of that great promontory. That fictitious charts of this sort existed among the Mahomedans in the East, as well as in Europe, may be admitted; for it was a prevailing notion, in all ages, that Africa was circumnavigable; and it has been already noticed, that on both coasts, when the voyagers reached the limit of discovery, the report[408] of the country was always in favour[409] of such a passage. The Portuguese, when they first entered Benomotapa, heard of great and regular cities in that kingdom, and of public roads running[410] far west, and quite down to the Cape. If these reports were exaggerated, we may still conceive that a great kingdom had extended its communications to the west and south, as far as their caravans could find purchasers of the native produce; and the ruins of great buildings fully authenticated, with the name of Afur, and the gold mines, have induced Dos Santos[411] and other writers, as well as Bruce, to place here the Ophir of Scripture, and the limits of the navigation from Eziongeber.

Mickle[412] mentions a map found in 1526, in the monastery of Acobaça, said to be copied from one at Venice, which was

Castaneda, p. 8. "But further within there "be townes and villages." Ibid.

Castaneda says, p. 3. that Covilham set down the names of places in the chart he carried with him, *albeit ill written*. See Bruce, vol. ii. p. 108.

[408] The communication between the Atlantick and Indian Ocean seems to be intimated in Abulfeda (p. 50. Gagnier's translation, MS. in the Bodleian); but it is so obscure, that I am not certain that I comprehend it even in the translation.

[409] Ἡ μὲν Ἐρυθρὰ φάινεται κατὰ μικρὸν κοινωνοῦσα πρὸς τὴν ἔξω Στήλων θάλασσαν. Aristotle, ii. Meteor. i. cited by Wesseling ad Diodorum, p. 23. "The Indian Ocean appears gra-"dually to communicate with the Atlantick."

[410] Ed. Barbosa in Ramusio, vol. i. p. 288, et seq. mentions such a road; that it went far south may be true, but hardly to the Cape.

[411] See Lobo's History of Abyssinia, p. 261. French ed. Dos Santos finds here all that Solomon found, except peacocks; and Thukkiim, which our translation renders peacocks, he converts into peroquets.

[412] Introduction to the Lusiad, p. xxxiv.

believed to have been taken from the original of Marco Polo, and which, according to Ramusio [413], marked the Cape of Good Hope. But this Mickle considers as a mere report, calculated to derogate from the honour of Prince Henry as the author of the discovery. This, however, the date of the map, when it was found in 1526, could not affect, if it were a forgery.

But in reality this is nothing more than the map of Fra. Mauro in 1459, a copy of which is said still to be preserved in the monastery of Alcobaza, and the original of which is still at Venice. The history attending it will be found in the fourth Dissertation, added to the second part of this work.

Ramusio [414] was mistaken in saying that this map was copied from that of Marco Polo's, for it certainly does contain a termination of Africa, given on the authority of an Indian pilot; and detracts no more from the merit of Diaz and Gama, than Martin Behaim's account derogates from the honour of Magellan.

Marco Polo himself was too wise and too faithful a traveller to assert the existence of a cape which was still undiscovered. We have his work, and we find his language in perfect harmony with that of Skulax and the Periplûs [415]. "Beyond the islands "of Madastar and Zanzibar," says he, "there is no farther "navigation southward, because the sea runs there with great

[413] See Renaudot, Two Arabians, p. 31. Purchas, ii. p. 1672.

[414] See Ramusio, vol. ii. Dichiaratione, p. 17.

[415] The reading of this passage in Ramusio is very different from that of Bergeron; but both agree in stating the impetuosity of the current to the south. I have followed Ramusio, as I always do in preference to other translators. Vol. ii. M. Polo, lib. iii. c. 35. Bergeron, cap. 39. For the character of M. Polo, see Schikard Tarich, p. 185. M. Polus Venetus minime vanus author cujus narrata pridem incredibilia quotidie magis magisque verificantur. The Tarich likewise contains an account of the Oriental produce, found in the palace of the kings of Persia, upon the Mahomedan conquest of that country.

" velocity to the south, so that it would be impossible for any " vessel to return." Now here it is to be observed, that M. Polo [416] himself confesses that his information, in regard to the islands of the Indian Ocean, was obtained from the native pilots and mariners; and this is the reason why he calls the continent of Africa the island of Zanzibar, and gives it an extent of two thousand miles. Whatever error there may be in this, his mention of the current between Madagascar and the continent is an illustrious truth, the more remarkable as M. Polo was never on this coast himself, but the source of his information was genuine and authentic. The reason also assigned for not passing to the south, though it was known that there were [lands or] islands in that quarter, is the same which the Arabs of Sofala and Mosambique gave to the Portuguese at their first arrival on the coast. The whole of this is consistent with the received opinions of the Greeks and Arabs, whose knowledge in the early ages terminated at Prasum; and the current of the Mosambique channel appears to have been an insuperable barrier to all navigators except the Phênicians.

The travels of M. Polo were a work that had evidently been consulted by Prince Henry and the kings of Portugal; and the first edition of it from the press was at Lisbon, and as early as 1502, only four years after the voyage of Gama. But the use that had been previously made of it is manifest from the instructions given to Covilham, which were derived from this and other journals [417] of the same kind, in which the countries he was directed to visit were all noticed. Antecedent to this

[416] Lib. iii. c. 27.

[417] The journal of Nicola di Conti was published with that of M. Polo, at Lisbon. He was in India between 1420 and 1440, and his work is highly interesting and curious. It is inserted in Ramusio's, and similar collections.

publication the work was only in manuscript, but of this there were said to be three copies: the original in Italian, dictated by the author himself, when he was in prison at Genoa; and two others in Latin, one at Padua and another at Berlin. It was from the Latin copy at Padua that Ramusio published it in Italian, and from which it was inserted in Purchas's collection, and a variety of others on the continent. The best edition is said to be that of Andre Muller[418] at Berlin, 1671; but this I have never been able to obtain. The Portuguese edition of 1502 was published by a gentleman of the court, attendant on Eleonora queen of Emanuel, who likewise published the journal of Nicolai de Conti, and of Jerom de St. Etienne. The date in 1502 seems to intimate that, whatever use had been made of these works in the progress of discovery, they were now published with an intention to prove that they, none of them, contained a specific account of the great promontory of Africa, and consequently that the merit of the discovery was the property of Gama alone.

The belief that such a termination of this vast continent existed, I have already shewn, was general; but the actual delineation of it, and the assertion that the barrier had been passed, as far as I can discover, was to be found nowhere but in the Planisphere of Fra. Mauro. The date of that work is 1459, nearly forty years before Gama sailed; and it is not only ascertained that Prince Henry had a copy of it, but that it was composed with a view to encourage the great designs which he had in view. There can be no doubt but that both Diaz

[418] See Green in Astley's Collection, vol. iv. p. 581. and the preface of Muller prefixed to M. Polo in Bergeron.

and Gama were made acquainted with its contents, and furnished with instructions from it, as Covilham was supplied with a map and similar information from the same repository. This detracts nothing from the glory of the achievement, but proves the wisdom as well as the solicitude of Prince Henry; and that while he aspired to the honour of opening the communication, he neglected no means of acquiring the necessary information requisite to the success of his undertaking. Possessed of such instructions, Gama embarked with confidence, and persevered with fortitude. It is presumption to attempt impossibilities, and temerity insures disappointment; but in Gama we find a selection of means proportioned to the end, and an acquisition of intelligence as the foundation of his hopes. He was not the first man who said that Africa had its limit, but the first that proved it.

VOYAGES OF BARTHOLOMEW DIAZ AND VASCO DE GAMA.

XXVII. From the year 1410[419] to 1486 the Portuguese had been engaged in advancing their discoveries to the south; some progress had been made in every reign; but the honour of doubling the extreme cape of Africa was reserved for John the Second. In 1486[420] Bartholomew Diaz sailed from Portugal with three ships; he is called an officer of the king's storehouse at Lisbon, but is manifestly of a family[421] which had long been

[419] One thousand four hundred and six is given as the first date of Prince Henry's designs.

[420] See Castaneda, Faria, Mickle, Osorius, Bruce.

[421] We meet with Dinis Diaz and Vincent Diaz in 1447, and John Diaz who was one of the first company erected at Lagos in 1444. Faria, p. 9.

employed in these voyages of discovery; and had probably been gratified with a place of trust for merits in the service. He advanced to 24° south, one hundred and twenty leagues beyond the track of former navigators, and then stretching boldly out to sea, never touched upon the coast again till he a actually forty leagues to the eastward of the cape, which he had passed without seeing it in his passage.

This however was not the termination of his discovery, for he proceeded to the river del Infante, upwards of six degrees to the eastward of Agulhas [422], which is the most southern point of Africa, and near a degree beyond the Cape of Good Hope. The reason of his return is not quite evident; but he had parted [423] with one of his little fleet on his passage, and it may be presumed that the impossibility of collecting information from the natives, with the continuance of the coast to the eastward, which he might have expected to trend to the north, contributed to his determination. Five-and-twenty leagues short of this river he erected his cross on a rocky islot, which still bears the name of De la Cruz, in the bay of Algoa [424]. This is a perpetual monument to his honour, and the Grand Cape which he saw on his return he styled the Cabo Tormentoso, from the tremendous storms he had encountered on his passage. The different sentiments with which this discovery

[422] Cape Agulhas or Needle point. These names still decorate our charts, and it is but justice to preserve the names and language of every discoverer. The French have had the vanity to displace several appellations of our late discoverers. But La Peyrouse was honester than his countrymen.

[423] He met this vessel on his return, with only three of the crew alive. One died for joy.

[424] Algoa, in the English charts, properly Del Agoa, (Agua, water,) there are two Del Agoas.

inspired his sovereign upon his return, reversed the omen, and changed the Stormy Cape into the Cape of Good Hope, a name which has superseded the pretensions of all occupants and all conquerors, and which it is hoped will preserve the glory of a generous monarch, and his hardy subjects, to the end of time.

Still, though the discovery was made, it was not completed. India had been the object of the sovereign, and the nation, for almost a century; but India was neither found, or seen, or heard of: this was wanting to the fame of Diaz, and this was the cause that all the glory of the discovery attached to Gama. Gama was a man of family [425], and Diaz sailed under him, with an inferior command; he had not even the satisfaction of attending his superior to the completion of his own discovery, but returned from St. Jago, and was again employed in a secondary command under Cabral, in the fleet that sailed to India in 1500. In this expedition Brasil was discovered, and in the passage from thence to the Cape, four ships perished, one of which was that of Bartholomew Diaz, with all on board [426].

It would seem natural that the discovery of Diaz should have been immediately prosecuted to its completion; but it required a deliberation of ten years and another reign before a new expedition was undertaken; and great debates are mentioned as passing in the council of Portugal, whether the attempt itself were expedient, or any advantage could be derived from it to the nation at large.

[425] Faria. But Castaneda takes no notice of his family; he at least had armorial bearings, which, in that age, implied the rank of gentleman. He bore a Gama, i. e. Dama.

[426] Mickle Lusiad, p. 201. Castaneda, p. 73.

In the mean time, however, the design had never been relinquished, or the prior discoveries neglected; John II. had dispatched Covilham and his companions into the east, and the establishments on the coast of Guinea had been attended to with anxious solicitude. At length when Emanuel had determined upon prosecuting the discovery of India, Gama was selected for the service, and was conducted to assume his command on board the fleet, under the most solemn auspices of religion[427]. The king, attended by all his court, accompanied the procession, and the great body of the people was attracted to the shore, who considered him and his followers rather as devoted to destruction, than as sent to the acquisition of renown.

The fleet consisted of three small ships and a victualler, manned with no more than one hundred and sixty souls; the principal officers were,

Vasco de Gama.
Paul de Gama, his brother.
Bartholomew Diaz, who was to accompany them only to a certain latitude.
Diego Diaz, purser, brother of Bartholomew.
Nicolas Coello.
Pedro Alanquer, who had been pilot to Diaz.
Gonzalo Gomez.

[427] Bruce, who is no enemy to religion, has condemned the religious solemnity attending this embarkation, as discouraging; but he seems neither to have considered the age or the nation. By all that we can collect of the execution of this voyage, Gama seems to have devoted himself to death, if he should not succeed, from a sense of religion and loyalty. His success is owing to this sentiment.

They sailed from Lisbon on the 18th of July 1497, and after parting with Diaz at St. Jago, reached the Bay of St. Helena in latitude 32° 35′ 0″, on the 4th of November. They had on board several who spoke the Arabick language, and others who had acquired the Negro tongue by former voyages to the Gold Coast, Benin, and Congo. In the Bay of St. Helena they found the natives which we now call Hottentots, as we discover by the mention of a peculiarity in their utterance, which the journal calls sighing[428], and which Vaillant describes by the term *clappement*, a gutteral cluck, the characteristick of their language. None of the Negro interpreters understood this dialect.

A quarrel arose between the voyagers, and these harmless and timid natives, from the suspicion of treachery, natural to those who visit barbarous nations for the first time; and in the skirmish Gama himself was wounded in the foot. This accident hastened their departure. They left the Bay on the 16th of November; Alanquer declaring that the cape could not be much farther than thirty leagues distant, though he could not describe it, as he had passed it without seeing[429] it, under the command of Diaz. For the four following days it was a continued tempest at south-south-west, during which Osorius[430] introduces the account of Gama's confining his pilot in irons, and standing to the helm himself. Castaneda mentions nothing of this circumstance; his narrative indeed is brief and dry, but seems to be a copy of the journal[431]. On the fourth day

[428] Castaneda, p. 7.

[429] I follow the Journal of Castaneda; he must have seen it on his return.

[430] Vol. i. p. 48.

[431] It often glides from the third into the first person, without appearing conscious of the change.

the danger was surmounted; they doubled the Cape on the 20th of November, and getting now the wind in their favour, came to an anchor in the Bay of St. Blas, sixty leagues beyond the Cape, upon the Sunday following. This Bay still bears the name of St. Bras in our charts; and the natives found here were the same as those of St. Helena.

At St. Blas the fleet staid ten days, and was supplied with oxen by the natives. They found also penguins and sea lions in great numbers. They discharged and burnt the victualler, and then proceeded on their voyage to the eastward. The rock de la Cruz, where Diaz had erected his pillar, was by estimation sixty-five leagues from St. Blas, and the river Del Infante fifteen farther to the east. When Gama set sail the current was strong against him, but having the wind in his favour, which blew a storm from the 8th to the 13th, he pushed forward till he was sixty leagues from St. Blas, on the 16th of December. Here he made the coast [432], which had a good appearance, with herds of cattle on the shore. He passed within sight of de la Cruz, and wished to have come to an anchor at the river Del Infante, but the wind being adverse, he was obliged to stand out to sea, till on the 20th of December it came again to the west, and carried him through the currents which had opposed him all round the Cape. The good fortune which attended him in obtaining this wind, at the time when the current was most unfavourable, inspired his heart with gratitude: he humbled himself with pious acts of devotion before his Creator, to whose especial Providence he imputed his

[432] Somewhere about Cape Arrecife or Foul Cape.

success, and declared to his people, that he verily believed it was the will of God that India should be discovered[433].

From the 20th to the 25th he ran along a coast which he styled Terra de Natal, from the celebration of the Nativity on that day. It lies between latitude 32° 30′ 0″ and 30° south; and on the 6th of January 1498 he reached a river which he named De los Reyes, from the feast of the Epiphany; he did not anchor here, though in great want of water, but proceeded till the 11th, when he landed at a river called Cobio[434], and which, from the treatment he received, he left afterwards marked with the appellation of Rio des buonas Gentes, or the River of Good People.

The natives here were no longer Hottentots but Caffres, who even in that age bore the same marks of superior civilization, which they preserve to the present hour. A circumstance more fortunate and more extraordinary was, that Martin Alonzo understood their language. This is a most remarkable occurrence, as Alonzo could scarcely have been lower than Mina on the western coast, which is forty degrees from the Cape, and the breadth of the continent from west to east cannot, in the latitude of 20° south, be less than eighteen or nineteen degrees more. What Negro nation or language do we know of such an extent? and yet wonderful as it is, there is no reason to doubt the fact. These people had mean houses, but well furnished, and were possessed of iron, copper, pewter, salt, and ivory.

The fleet staid here till the 15th, and obtained wood, water, fowls, and oxen. Proceeding on that day to the northward,

[433] Castaneda, p. 10. [434] Ibid. p 11.

they continued their voyage till the 24th; in this run they passed Cape Corrientes and the low coast of Sofala without anchoring, till they reached a river, which, from the circumstances that arose, they had afterwards reason to call the river of Good Signs [435] (de buenas Sinas).

It is a circumstance particularly noticed by the historians, that from St. Helena to this place no vestige of navigation, no sort of embarkation had been seen. But here, upon the morning after their arrival, they were visited by the natives in boats, which had sails made of the Palm [436]. This roused the attention of every one on board, and in the course of a few days two men of superior rank came on board, who had garments of cotton, silk, and sattin; this was the first infallible *sign* of the produce of India, and hope glowed in every heart. The language, however, of their visitors was unknown; they understood not the Negro dialect of Alonzo, nor the Arabick of Alvarez [437], but they intimated by signs that they had seen ships as large as the Portuguese, and seemed to mark the north as the quarter where they might be found.

Here then Gama determined to prepare for the completion of his discovery. The natives were quiet; they were not Mahomedans. The women received the seamen with complacency, and provisions were easy to be procured. These were all inducements for laying his vessels a-ground and careening them. He gave orders accordingly; and during a stay of more than thirty days, which this service required, no dis-

[435] Faria, p. 38.

[436] Faria. The expression is not clear, but intimates cloth made of fibres of the coco palm. It is worthy of notice that Castaneda mentions *boats* here, but nothing of *sails* till they approached Mosambique.

[437] Osorius says, one of them spoke Arabick very imperfectly, vol. i. p. 51.

pute arose to disturb the harmony between the natives and their visitors.

This river is the Zambezè [438], which is navigable for two hundred leagues up to Sucumba [439], and penetrates into the interior of Benomotapa. It falls into the sea through a variety of mouths, between latitude 19° and 18° south, which are known in our modern charts as the rivers of Cuamo and Quilimanè [440], from a fort of that name upon the northern branch [441]. I find nothing in Castaneda or Faria to mark the extent of Gama's knowledge at this place, but as he had the corrected chart of Covilham on board, in which Sofala was marked as the limit of his progress; if that chart was furnished with the latitude, Gama must have known that he had now passed the barrier, and that the discovery was ascertained, as the most southern branch of the Zambezè is two degrees to the north of Sofala. He must likewise know that the directions given by Covilham were to inquire for Sofala and the island of the Moon [442]. And whether he understood the language of the natives or not, the name of Sofala [443] must have been pronounced to them in an intercourse of thirty days, and the quarter where it lay must have been obtained.

We are here approaching to a junction with the discoveries of the Arabians, the Egyptians, the Greeks, and Romans; and

[438] Zambezè is a Caffrè name, as is Luabo. Luabo only is navigable. Lobo, p. 260. The Zambezè has five mouths. Dos Santos. Ibid.

[439] Ressende, p. 80.

[440] Quilimanè is the river of Good Signs, according to John Dos Santos. Lobo, p. 163. It is said to signify the Great River.

[441] I cannot ascertain which mouth of the Zambezè Gama anchored in. I suppose it to be the largest, which is that most to the north, as Ressende places the river of Good Signs in latitude 17° 50′ 0″. P. Lobo calls Quilimanè the river of Good Signs, p. 202, ed. Paris, Le Grande.

[442] The Island of the Moon is an Arabick name, and occurs in Al Edrissi.

[443] See Osorius, p. 52.

though possibly none but the Arabians[444] had been as low as Sofala by Sea, certain it is, if the authority of Ptolemy may be credited, that the Romans had penetrated inland to the southward of the equator, and terminated their researches with a nation they styled Agisymba. Ptolemy[445] mentions two Roman officers, Septimius Flaccus and Julius Maternus, who had been engaged in these expeditions to the south, Flaccus from Cyrênè[446], and Maternus from Leptis. Flaccus reported that the Ethiopians [of Agisymba] were three months journey south of the Garamantes, and Flaccus seems to have performed this march himself. Maternus reported, that when the king of the Garamantes set out from Garama to attack the Ethiopians of Agisymba, he marched four months to the south. Ptolemy does not allow the use made of these reports by the geographer Marínus, which would carry Agisymba into 49° or 55° south latitude, still under his own correction he carries Prasum[447] into latitude 15°, and Agisymba somewhat farther to the south.

Wonderful as this march of Flaccus is to contemplate, through the very heart and most desert part of Africa into such a latitude, it is still more extraordinary that the latitude of Prasum should coincide with Mosambique, and that two or three degrees farther to the south, the kingdom of Benomotapa[448] should occur, in which Zimbao is still the name of a

[444] And the Phênicians, if Sofala is Ophir.

[445] Lib. i. c. 8.

[446] Libya.

[447] Page 115.

[448] Benomotapa is celebrated by all the Portuguese, as the source from whence all the gold dust at Sofala, and on the coast, is acquired. There is said to be a gold mine in that kingdom called Manica, and others of silver, as Faria affirms, (vol. iii. p. 148.) and gold is also found in the streams which come down from the mountains. These mountains, which Rennell calls the Belt of Africa, Di Barros places between the equator and tropick of Capricorn. What their breadth is, or whether they communicate with those of Abyssinia, is still problematical. That they do, is highly probable; and as they throw

tribe, or as the Portuguese writers affirm, the court of the sovereign[449].

It is by no means necessary to assert, that Mosambique is identically Prasum, or the Zimbaos[450] Agisymba, but the coincidence of latitude led the Portuguese almost to a man to give credit to the one, and the coincidence of sound[451] has left a constant belief of the other. The Portuguese pilots were many of them well read in Ptolemy. It is from information of this sort that Di Barros maintains that Sofala is almost surrounded by a river issuing from a lake called Maravi[452], which the an-

down the Nile to the north, on the south they may well produce the Zambezè, or rivers of Cuamo or Quilimanè; as well as the Obii and Quilimanè at Patè and Ampaça, and the great lake which all speak of with so much uncertainty. We may suppose all these rivers which come to the south productive of gold, as well as the river of Benomotapa. And as the kingdom of Abyssinia in its more flourishing state certainly extended its influence to Magadoxo, in latitude 5° north, so may we discover the means by which, in all ages, the gold dust of the south found its way into that kingdom. Bruce says it has no gold of its own, and yet gold by the ounce, and bricks of salt, are the current coin of the kingdom. This method of procuring gold in Abyssinia from the south was known both to the Greeks and Arabs, and must apparently have been the primary cause of their voyage to the south, and possibly of those performed by the Idumêans, Phênicians, and Solomon to Ophir, if Ophir and Sofala be the same. In Sumatra, the native name for a gold mine is Ophir, and this is perhaps one reason for some of the learned placing Solomon's Ophir there. But query, whether Ophir is not a name carried into Sumatra by the Mahomedans, as Adam's Pike was conveyed to Borneo by them? See Annual Register, 1769. Characters, p. 3. from le Poivre's Travels.

[449] Di Barros, in Ramusio, p. 261. vol. i. Barbosa, ibid. vol. i. p. 288. Marmol. vol. iii. who copies Di Barros.

[450] The Gallas who have afflicted Abyssinia for many centuries, are placed by Bermudez in the neighbourhood of Magadoxo, and called Suimbas: a very probable site and people for the Agizymbas of Ptolemy. See Bermudez, in Purchas, vol. ii. p. 1166. This has not escaped d'Anville. See his Map of Africa. See infra, n. 451. It is far more likely that Flaccus should have reached the latitude of Magadasho than that of Benomotapa.

[451] D'Anville calls them Zimbas or Muzimbas, and seems to think them the same as the Gallas, who have been the pest of Abyssinia for many centuries past. The lake here noticed he first introduced into a map composed for Le Grande's edition of Lobo in 1728.

[452] I always suspect either the *existence*, or the *place* of this lake; for as Marmol confounds a lake somewhere between Magadoxo and Daffui with the Dembea, so is the river that *issues from this lake, and almost surrounds* Sofala, very like the Nile crossing the lake Dembea, and *surrounding* the province of Gojam.

cients supposed to be the origin of the Nile; a charge not very unjust, if we consider that Ptolemy has brought the source of that stream into 12° 30′ 0″ south; though Di Barros himself is as bold in his assertion when he derives from the same lake [453] the Zambezè, with all the streams of Cuamo, the Espiritu Santo which falls into the sea below Cape Corrientes [454], and another river which is to traverse the whole continent into Congo.

At this river of Zambezè we have a right to consider the discovery of Gama as accomplished, for here he had united his circumnavigation with the route of Covilham; but we must conduct him to Quiloa, in order to make him meet the limit of the Periplûs at Rhaptum, and to Melinda, before he obtained a pilot to conduct him to the Indies.

It was not till the 24th [455] of February that the fleet was repaired and ready to sail; and it is remarkable that the people had suffered much here from the scurvy, notwithstanding the country is said to have abounded with fruits of various sorts in abundance; the disease is imputed to the lowness and humidity of the coast, and the humanity of Gama is recorded as opening all his own stores for the relief of the afflicted. Upon the resumption of his course he kept along the coast for six days, and upon the first of March came in sight of four islands that lie off the port of Mosambique. It is upon the approach to this port that Castaneda first mentions boats furnished with sails; and no sooner did this sight meet the eyes of the navigators than Coello, running up along side of his commander,

[453] Marmol speaks of a Lake Zaflan here, which he confounds with the Tsana or Dembea of Habez, p. 156, et seq.

[454] See Di Barros, in Ramusio, vol. i. p. 386, et seq.

[455] An. 1498.

cried out, "How say you, sir, here is another kind of people;" and such indeed they found them, for Mosambique was at this time under the government of Quiloa, the sovereign of which was master of the coast from Sofala to Melinda[456], with most of the islands in the neighbourhood. From the colour of the voyagers they were easily mistaken for Turks[457], with whom the Moors were necessarily acquainted in the Red Sea, and for this reason, upon the first interview, every civility was imparted, and pilots granted at their request. With the discovery of this mistake, and the treachery in consequence of it, we have no concern, but with the appearances that evinced an Indian commerce Gama had every reason to be gratified. The vessels were such as traded along the coast, large, but without decks, the seams sewed with cayro, or cordage made of coco, and the timbers fastened with the same without a nail throughout. The sails were mats composed of palm leaves; and many of the larger sort had charts[458] and compasses[459]. The Moors of the Red Sea and India received here the gold of Sofala in exchange for their commodities; and the town, though meanly built, furnished abundant specimens of pepper, ginger, cottons, silver rings, pearls, rubies, velvet, silk, and various other articles of an Indian trade. The inhabitants were mostly Caffres, but the

[456] Mombaça excepted, which had revolted, and Melinda was preparing for a revolt.

[457] Moors of Barbary, according to Osorius. But this is supposing that the natives of Mosambique knew that they had come round the Cape. It is much more probable that they supposed them Turks from the Red Sea who had been down to Sofala, or had been driven accidentally to the south.

[458] And quadrants, Osorius says; but perhaps without sufficient authority. I have not the Latin work of Osorius, but I suppose he might use astrolabe, which is rendered quadrant by his translator; this would not prove a knowledge prior to the Europeans, for the Arabick term is astharlab, evidently corrupted from the Greek, and shews its origin as readily as bussola. See Chamb. Dict. in voce.

[459] The Arabick term for the compass is bussola, a certain proof that they derived it from the Italians who traded to Alexandria. Mickle, lxxx. See supra.

government was in the hands of Mahomedans from Arabia, and as the commander had several who could speak Arabick on board, a communication was readily opened, and intelligence soon obtained that the voyage to Calicut was regularly performed, and the distance about nine hundred leagues.

The fleet remained at Mosambique and in the neighbourhood till the 24th[460] of March, and then made sail along the coast to the northward[461]. I should have been glad to have conducted Gama to Quiloa, as I esteem it the Rhapta of the Periplûs; and I could have wished to have ended his navigation from Europe where I terminated that of the Greeks from the Red Sea; but partly from treachery and partly from accident, he was carried past Quiloa, and proceeded to Mombaça; the same treachery attended him at this place as before, which deterred him from entering the port. Some of the people, however, landed and found a city much more splendid than Mosambique. Here likewise were observed all the commodities of India, with the citron, lemon, and orange, the houses built of stone like those of Portugal, and the inhabitants chiefly Mahomedans, living with all the splendour and luxury of the east.

The stay of Gama at this place was only two days, when he proceeded to Melinda and came to an anchor upon the 17th of

[460] See Capper on the Monsoons, p. 68. The monsoons in the Mosambique channel correspond nearly with those on the coast of Malabar, that is, south-west, from April to November; north-east, from November to April. South-west is the fair season; the land and sea breezes are regular. But the Mulatto of Magadoxo mentions a change of the monsoon on September 14th. I should doubt the authority, or suppose that it was the peculiarity of a single season.

[461] It may not be improper to notice that the language of the coast styles the course to the northward east, and to the Cape west. It is thus in the Thames that we call Norway ships, Danes, and Swedes, east country ships.

March 1498. There is no harbour here but an open road[458], the city, however, was splendid and well built, with houses of several stories; and the appearance of wealth throughout, evinced the extent of their commerce and their communication with India. Here, though Gama was not without suspicion, he experienced every act of friendship and hospitality; and this, because Melinda was inclined to hostilities with Quiloa, and ready to receive every one as a friend who had experienced injuries in a rival city.

We are here to take our leave of Gama; his discovery was ascertained, and after having conducted him within the boundary of the Greeks and Romans, the object for introducing this narrative of his voyage is answered. It is but justice, however, to notice, that he reached the long sought shores of India, and visited Calicut, the centre of Indian commerce, without any particular misfortunes, but such as are natural to a first attempt. He returned to Lisbon in 1499, where he received every honour which a generous sovereign and grateful nation could bestow.

He was again honoured with the command of a squadron in 1502, when the style of his commission was that of admiral and governor; and he returned[463] a third time in 1524, under the reign of John III. when he was raised to the title of viceroy and count de Vidigueira. During this command he died at Cochin in 1525, after having the satisfaction of living to see the power of his country paramount in the seas of India, from Malacca to the Cape of Good Hope. A power which she

[458] Such are the Ὅρμοι of the Periplûs. [463] Faria, vol. i. p. 63, and 280.

maintained for upwards of a century, and lost at last by the loss of those virtues by which it had originally been acquired.

Gama was formed for the service to which he was called, violent indeed in his temper, terrible in anger, and sudden in the execution of justice, but at the same time intrepid, persevering, patient in difficulties, fertile in expedients, and superior to all opposition. Courage is a quality common to thousands, but fortitude exists only in a noble mind; and few instances of fortitude are more conspicuous than that of Gama, when, upon being detained in Calicut by the Zamorin, he ordered his brother to sail without him, that his country might not be deprived of the fruits of his discovery. To the virtues of a commander he added the religion of a Christian, and though the religion of his age was never without a tincture of chivalry and superstition, in one sense at least his religion was genuine and sincere. It was religion that supported him under the perils he encountered, and a firm persuasion that it was the will of Providence that India should be discovered. The consequence of his discovery was the subversion of the Turkish power, which at that time kept all Europe in alarm. The east no longer paid tribute for her precious commodities, which passed through the Turkish provinces; the revenues of that empire were diminished; the Othmans ceased to be a terror to the western world, and Europe[464] has risen to a power which the other three continents may in vain endeavour to oppose. Portugal it is true has lost her pre-eminence in the east, but she still retains Brasil, which was the accident of her Oriental

[464] Such is the opinion both of Abbé Raynal, Mickle, Dr. Campbell, Harris, &c. &c. See in Mickle, p. 83. a citation from Faria to this effect.

voyages, and which has prolonged her existence as a nation to the present hour.

The reader will pardon this digression in favour of a man whom no historian ever contemplated without admiration, but if the history of the man does not attach to the purpose of the present work, the account of his voyage is one of its constituent parts. Our design has been to shew all that the ancients performed, or could not perform, and the voyage of Gama has been detailed, with all its difficulties, in order to prove the utter improbability of any previous navigation round the Cape. I will not say it was impracticable, but I think it impossible to have been once performed and never prosecuted; I think it impossible that it should have stood upon the page of history as an insulated fact, through a lapse of one-and-twenty centuries, without imitation or repetition of the experiment.

XXVIII. It remains still to shew the relative situation of the Arabs on this coast of Africa, such as the Greeks and Romans left them, and such as the Portuguese found them upon their arrival in the Eastern Ocean. The Periplûs mentions that the Arabs of Rhapta were subject to the sovereign of Maphartis, and Maphartis itself was one of the dependencies of Sabéa or Yemen. They employed the vessels sewed with coco cordage, from whence the name of the place was derived, and they traded to India, Arabia, the Red Sea, and Egypt. Arabs of the same description Gama found here after the expiration of thirteen centuries, the same vessels on the coast, and the same foreign trade. One circumstance indeed was different, the religion of Mahomed had at the same time it introduced superior

vigour, and a more extensive commerce, engendered a hatred to the Christian name, which excited that malice and treachery which Gama experienced, and which, perhaps, without a difference of faith, the rivalship in commerce must necessarily have produced.

Of these Arabs there were two distinct parties, one called Zaydes or Emozaides, who were the first settlers upon record, and the other a tribe from Baca in the Gulph of Persia near Bahrein[465]. The Emozaides were hereticks of the sect of Ali; they came from Yemen, and seem to have occupied the coast of Africa, after the time of Mahomed, in the same manner as their Heathen brethren had settled there in the age of the Periplûs. The tribe from Baca were Sonnites or orthodox, who hate the Shiites worse than Christians; they had seized first upon Quiloa, and had extended their power for two hundred miles along the coast, but from their internal dissensions were declining in power when the Portuguese first arrived in the Indian Ocean. Upon the introduction of this tribe from Baca[466], the Emozaides retired inland and became Bedouins[467]; they intermarried with the natives, and still exist as black Arabs, little distinguished from the Caffrès who are found both on the continent and in the islands[468], which lie in the Mosambique channel, and even in the island of Madagascar.

[465] Di Barros, in Ramusio, vol. i. p. 386, et seq.

[466] If we may judge from Niebuhr they ought to be of the tribe Beni Houle, in Oman.

[467] Wandering tribes that live in tents.

[468] The king of Johanna is perhaps of this cast, half Arab and half Negro, as Sir William Jones says the family came from the main. The proper name is Hinzuan, which became Anjuan, and Anjoane easily made Johanna by an English seaman. It is one of the Comora Isles between Madagascar and the continent; and Comora still preserves the name of Comr, the Arabick name of Madagascar, the Island of the Moon.

The whole coast below Mombaça was under the power of these Sonnites from Baca; but Mombaça had revolted, was independent, and had a sovereign of its own, who was a Sonnite; while Brava and Magadoxo[469] were styled republicks, where the power was in the hands of twelve[470] principal families forming an aristocracy, perhaps as conspicuous on that coast as Venice was in the Hadriatick.

This state of the country is perfectly analogous to the description of it in the Periplûs; every city, says that journal,

[469] An account of Magadoxo is inserted in Captain Hamilton's Account of the East Indies, vol. i. p. 12. and copied by Astley [Green], vol. iii. p. 389. where mention is made of an English ship, called the Albemarle, in 1700, out of which a boat was sent on shore, and the people never heard of. In this there is nothing very extraordinary; but what Hamilton did not know is, that a Mulatto, belonging to this boat, has left a memoir on the subject, which is preserved in the British Museum, 2992. Plut. xx. F.; in which he mentions the murder of the English, and that he was himself reduced to slavery, in which he continued sixteen years. At the expiration of this term, while he was accompanying an expedition of the natives against Bandem and Saem, he escaped on board a Dutch ship, and returned to England in 1724, when he found his captain, Mr. William Beawes, still alive. The reader will not be offended with the introduction of this note, when he is informed that Magadoxo has still some resemblance to a republic. The king's manner of living, house, and appearance, is inferior to that of some of his officers; and his power circumscribed. This Memoir is accompanied with drawings of the town and buildings, called Morsacks, which are places of burial, and bestow rank upon those to whose family they belong. There are other drawings of natural history, not valuable indeed, but the whole remarkable as the production of a Mulatto.

[470] The love of independence is the ruling principle in the mind of an Arab, and a patriarchal sovereignty is the only one to which he can naturally submit. This it is which drives so many petty tribes into the deserts, which they occupy from Mesopotamia to the frontiers of Morocco, and from the coasts of the Persian Gulph to Mosambique. The residence in cities is unnatural to them, and though they do occupy places which they have conquered, still every city must have its chief, and every chief finds a party within his walls which is hostile to his government. Niebuhr has painted this spirit of the people most admirably throughout his work. But the Mahomedan religion has also produced an aristocratick principle, subsisting under all the despotism of the east. The Ulemas, under the Turkish government, are an aristocracy between the monarch and the people; and whoever is acquainted with Oriental manners, knows that there were families which preserved a sort of ruling power in Samarkand, Bagdat, Basra, and all the principal cities of the east. Such a junction of families might well exist at Brava and Magadoxo, when the Portuguese first visited the coast; and any government where there was no ostensible chief would suggest to them the idea of a republick.

was a separate government, and every government had its independent chief. Such they were in that age, and such they might have continued if an European power had not arisen, which overwhelmed them all in a period of less than twenty years. Sofala, Mosambique, Quiloa, Angoxa, Ocha, Patè, Mombaza, Brava, and the Zanguebar Islands, all submitted to Diego Almeida, and Tristan d'Acugna before the year 1508. Melinda, which had always been friendly, lost all her importance, and Magadoxo only resisted with effect; but whether from the bravery of the people, or because it lay too much to the north to be of importance, is hard to determine. Had they not been conquered they must have sunk in their importance from the natural course of events; the sinews of their commerce were cut, and their ships could not sail without a Portuguese pass. The produce indeed of the coast itself would still have maintained these cities from utter decadence, and brought foreigners to their ports; but the power of the Portuguese monopolized all profits, till it fell in its turn by the errors of the government, and by the avarice and peculation of its officers. Of all these conquests which do so much credit to their valour, and so little to their policy, Mosambique is the only possession which has survived the wreck of their empire; and this port is said still to be a profitable settlement, and to preserve an influence over the other states, which have reverted again into the power of the Arabs; among these the Imam[471] of

[471] Letters of Merchants, (in Gynæus, Novus Orbis,) p. 136. Naves Maurorum ex Cambaya ad Zephalam (Sofalam) deveniunt inde comportant aurum, Ebur, Ceram: ante sex vel octo menses non expediuntur..... inde concedunt Cambayam sive Meccham. This account is from the fleet fitted out from Portugal in 1502 or 1503, and answers exactly to the voyage noticed in the Periplus. See supra, p. 146.

Oman is the chief, and Quiloa and Zanguebar are governed by Sheiks of his appointment [472].

It was my intention to have closed this account of the coast, and this part of the Periplûs, which I call the African Voyage, with some particulars relating to the Arabian settlements, and their situation under the power of the Portuguese; but the whole of this subject has been so ably discussed by the writers of the M. Universal History, in their twelfth volume, and so much more at large than would have been suitable to the nature of the present work, that the labour is not necessary. Some particulars I had collected from Ressendè's MS. in the British Museum, with which they were not acquainted, that might have been acceptable; but in general, the authorities they have followed are so genuine, and their own observations so just, as to admit of little farther enlargement upon the subject.

HERE, therefore, I close the First Part of my design, which was to examine the navigation of the ancients on the coast of Africa, from their first entrance into the Red Sea, to the termination of their progress to the south; and to connect their discoveries with those of the moderns, by fixing on the voyage of Gama as the point of union. The Second Part will contain two books allotted to Arabia and India, a subject less obscure, but still curious rather than attractive. Interesting it can be to those only who are possessed of information, and qualified to

[472] Niebuhr, vol. ii. p. 146. Arabie, Fr. ed. And Captain Bissell's Journal.

appreciate the merit of intellectual perseverance. Research, selection of materials, and discrimination of evidence, present not themselves as objects to the careless or superficial. These qualifications, indeed, an author may claim without having a title to the possession; but if, in the present instance, his pretensions are admitted, and if his efforts are directed to the attainment of truth, the result of them may be as acceptable to others as the pursuit has been gratifying to himself. The discovery of truth is satisfactory, even in matters of speculation and amusement; but to dispel the clouds of antiquity, to penetrate into remote regions, and to trace the intercourse of mankind to its origin, must be curious, and may be useful. In the performance of this service, I have renounced system, and disclaimed pertinacity of error; but if any tendency of this sort can be imputed, I am ready to abandon both upon conviction. The corrections of professional men, or men of science, I shall receive with gratitude; to them I devote the result of my inquiries, and to their judgment I shall submit without a murmur.

THE END OF THE FIRST PART.

THE

PERIPLUS

OF THE

ERYTHREAN SEA.

PART THE SECOND.

CONTAINING,

AN ACCOUNT OF

THE NAVIGATION OF THE ANCIENTS,

FROM THE GULPH OF ELANA, IN THE RED SEA,
TO THE ISLAND OF CEYLON.

WITH DISSERTATIONS.

Γράφω δὲ ταῦτα, πολλοῖς μὲν ἐντυχὼν ΠΕΡΙΠΛΟΙΣ, πολὺν δὲ περὶ τὴν τούτων ἴδησιν ἀναλώσας χρόνον.

MARCIANUS HERACLEOTA, apud HUDSONUM, p. 62.

THE

PERIPLUS

OF THE

ERYTHRÆAN SEA.

PART THE SECOND.

CONTAINING,

AN ACCOUNT OF

THE NAVIGATION OF THE ANCIENTS,

FROM THE GULPH OF ARABIA, TO THE EAST-

TO THE ISLAND OF CEYLON.

WITH DISSERTATIONS.

Πρέπει δ' ἑκάστῳ πρᾶξις ἐμπόρου, καθὼς καὶ τὰ εἴδη ἔχει.

Menander Rhetor.

TO

THE KING.

SIR,

WHEN I was honoured with permission to dedicate the former part of this Work to Your Majesty, I entertained little hope that the remainder would be brought to a conclusion. But the consequences of Your Majesty's condescension in my favour have been leisure, tranquillity, and health. In possession of these blessings, I returned naturally to those pursuits which have enabled me to fulfil my engagement to the Public. Im-

pressed therefore, as I am, with a sense of the most devoted gratitude, nothing remains for me to solicit, but the continuance of the same protection to the completion, as I experienced at the commencement of the Work. And if it shall appear that the plan has been formed with judgment, and executed with fidelity, these qualifications will be sufficient to recommend it to the consideration and patronage of Your Majesty.

I have the honour to subscribe myself

YOUR MAJESTY's

Most obedient,

most faithful,

humble Servant, and Subject,

JUNE, 1805.

WILLIAM VINCENT.

PREFACE.

WHETHER the following Work will afford a degree of satisfaction proportionate to the labour of compiling it, is a question not for the Author, but for others to decide. By some it may be thought digressive, tedious, and minute; while others may conceive that there are various sources of information still unexplored, which it was my duty to investigate. To the first I reply, that I thought nothing superfluous which could contribute to the elucidation of the subject proposed; and in answer to the latter I may observe, that there must be some limits assigned to collection and research. It is the office of judgment to select only such materials as will bear upon the point to be discussed; and for the exercise of this judgment, I now stand amenable to the tribunal of the Public. Friendly animadversions upon

the errors which may occur, I shall consider, not as a cause of offence, but as the means of correction; and of remarks proceeding from a contrary spirit, I have hitherto had little reason to complain. But if the Work which I now submit to the inspection of the Public, should not obtain the same favourable reception as I have experienced upon former occasions, it shall be my last offence. In the sixty-sixth year of my age, it is time to withdraw from all my pursuits of curiosity, and confine myself to the duties of my profession.

JUNE, 1805.

I AM to acknowledge my obligations to Mr. Dalrymple, in regard to the present publication, in the same manner as upon former occasions: I was, by his kindness, furnished with Surveys of the Harbours and Islands on the Coast of Malabar, which have been of great use.

And to Mr. A. Hamilton, of Edinburgh, Professor of the Sanskreet Language in the College at Hartford, I have been indebted for the Interpretation of Sanskreet Names on the same coast. This favour was the more acceptable, as I was known to that Gentleman only by my publications; and his offer of assistance was spontaneous.

THE

PERIPLUS

OF THE

ERYTHREAN SEA.

ARABIA.

BOOK III.

I. *Introduction.*—II. *Leukè Komè.*—III. *Petra, Kingdom of Idumêa, Nabathêans.*—IV. *Voyages distinguishable in the Periplús.*—V. *The Compass.*—VI. *Wealth of Arabia.*—VII. *Thamudêni and Canraites.*—VIII. *Burnt Island, Moosa, Coast of Yemen.*—IX. *Expedition of Elius Gallus.*—X. *Straits of Babel Mandeb, ancient Navigation of Sesostris.*—XI. *Aden.*—XII. *Arrangement of the Coast of Arabia on the Ocean.*—XIII. *Kanè.*—XIV. *Bay Sachalites, Hadramaut.*—XV. *Dioskórida, or Socotra.*—XVI. *Moskha, and O'mana.*—XVII. *Islands of Zenóbius, or Curia Muria.*—XVIII. *Sarápis, or Mazeira.*—XIX. *Islands of Kalaiús, or Suadi.*—XX. *Islands of Pápias.*—XXI. *Sabo, Assabo, or Moçandon.*—XXII. *Terêdon, Apólogus, or Oboleh.*—XXIII. *Oriental Commerce by the Gulph of Persia.*—XXIV. *Cairo.*—XXV. *Crusades.*—XXVI. *Gerrha.*—XXVII. *Minéans.*—XXVIII. *Antiquity of Oriental Commerce.*—XXIX. *Conclusion.*

I. THE commerce of the Ancients between Egypt and the coast of Africa, with all that concerns their discoveries to the South, has been traced in the preceding pages; and we

now return again to Egypt, in order to take a fresh departure, and prosecute our inquiries till we reach their final boundary on the East. The present Book will comprize all that concerns the commerce of Arabia, both in the interior, and on the coast.

The Periplûs is still to form the basis of our investigation; but as the object proposed is to give a general account of the communication with the East, no ăpology is requisite for detaining the reader from the immediate contemplation of the work itself. A variety of scattered materials, all centring at the same point, are to be collected, before a comprehensive view can be presented, or an accurate judgment formed; and if this task can be executed with the fidelity and attention which the nature of the subject requires, the general result will be preferable to the detail of a single voyage, in the same proportion as a whole is superior to its parts.

The commencement, then, of this second voyage is again from Berenîkè, and from this port there were two routes practised in the age of the author; one, down the gulph to Mooza and Okêlis direct, and the other, first up to Muos Hormus, and then across the gulph by the promontory Pharan, or Cape Mahomed, to Leukè Kŏmè in Arabia. This latter route is the immediate object of our consideration.

LEUKE KOME.

II. Leuke Kome, or the White Village, I shall place nearly at the Mouth of the bay of Acaba, the Elanitick Gulph of the

ancients[1]; and my reasons for assuming this position will be given at large in their proper place. But to this village we are immediately directed by the journal, after a passage of two or three days from Muos Hormus; for here, we are informed, "was the point of communication with Petra the capital of "the country, the residence of Málichas the king of the Na- "batêans. Leukè Komè itself had the rank of a mart in "respect to the small vessels which obtained[2] their cargoes in "Arabia; for which reason there was a garrison placed in it "under the command of a centurion, both for the purpose of "protection, and in order to collect a duty of twenty-five in "the hundred[3]" [upon the exports and imports].

We obtain, in these few words, a variety of particulars highly important to the subject of our consideration; for we find a native king under the controul of the Romans, a duty levied upon the trade of the natives, and the nature of the communication between the port and the capital. And if we now reflect that the intercourse with the capital was rather fixed here, at the mouth of the Elanitick gulph, than either at E'lana itself, or at Ezion Geber, we shall discover the same principle as operated on the Egyptian coast, where the communication

[1] A comparative table, containing the different distribution of the ancient names, by M. d'Anville and M. Gossellin, will be given hereafter; and I must mention once for all, that when I make use of M. Gossellin's Researches without mentioning his name, it is not to deprive him of the honour of his discoveries, but because it must occur so frequently that the repetition would be offensive. I had traced this coast many years before the publication of M. Gossellin's Recherches sur la Geographie des Anciens, 2 tomes, Paris, 1798; and though he precedes me in publication, I will not apply to him the old complaint, male sit illis qui ante nos nostra dixerunt.

[2] ἐξαρτιζομένοις; literally fitted out.

[3] In Albuquerque's time, the soldan of Egypt received custom upon spices, and other commodities, at Judda, in the same manner as the Romans had formerly received them at Leukè Komè. Commentar. de A. d'Albuquerque, p. iv. c. 7.

was fixed at Muos Hormus rather than Arsinoè, or at Bereníkè in preference to Muos Hormus.

In the age of the Periplûs, as this course was the less frequented of the two, so is it apparent that the commerce itself was of less importance; the vessels employed are Arabian, and the duty seems collected on them only: possibly the ships, which touched here after crossing from Muos Hormus, had paid the customs in that port, and made this harbour chiefly for the purpose of accommodation, or of ascertaining their route down the coast of Arabia.

Very different is the idea that I conceive of this trade while the communication with Egypt was in the hands of the Arabians themselves, previous to the appearance of Ptolemy's fleets upon the Red Sea, and their immediate communication with Sabêa; for the caravans, in all ages, from Minêa[4] in the interior of Arabia, and from Gerrha on the gulph of Persia, from Hadramaut on the ocean, and some even from Sabêa or Yemen, appear to have pointed to Petra, as a common centre; and from Petra the trade seems to have been again branched out in every direction to Egypt, Palestine, and Syria, through Arsinoè, Gaza, Tyre, Jerusalem, Damascus, and a variety of subordinate routes that all terminated on the Mediterranean.

It is not consonant to the design of this work to enter into any commerce antecedent to history; but from analogy, from the magnificence recorded of Ninevè and Babylon, from the

[4] The position of the Minêi is dubious: Bochart supposes them to be in the vicinity of Hadramaut; Gossellin places them two days from Mecca, tom. ii. p. 116.; Strabo places Cárana of the Minêans next to the Sabêans, p. 768.

ruins of Thebes still remaining, there is every reason to suppose that the wealth and power of these great cities arose from a participation in this commerce; and that the Arabians were the carriers common to them all. This is a fact which will admit of proof as soon as history commences; but we may pause a moment to observe, that though the Chaldêans and Assyrians might have been navigators themselves, as the gulph of Persia opened a communication for them with the Indian Ocean, and their works at Babylon and Terêdon intimate some attention to the advantages of a naval power; still the Indians[5], Persians, and Egyptians, seem to have been restrained by prejudices, either political or religious, from distant navigation; and though Persia and Egypt manifestly reaped the profits of an Oriental commerce which passed through these countries to others more distant, either on the north or on the west, still the common centre was Arabia[6]: the Arabians had no obstructions either from manners, laws, habits, or religion; and as there is every proof that is requisite, to shew that the Tyrians and Sidonians were the first merchants who introduced the produce of India to all the nations which encircled

[5] The religion of India forbids the natives to pass the Attock: it is the *forbidden* river. And if their religion was the same formerly as it is now, they could not go to sea; for even those who navigate the rivers must always eat on land.—The Persians, if their religion was that of Zerdusht, could not go to sea; for the Guebres, who build the finest ships in the world at Bombay, must never navigate them. The Egyptians did not only abhor the sea themselves, but all those likewise that used it. Gossellin Recherches, tom. ii. p. 96. Diod. lib. i. p. 78. See also Marco Polo, lib. iii. c. 20. Ed. Ramusio: quello che bee vino non si riceve per testimonio, ne quello che naviga per mare.

Linschotin in Purchas, vol. iii. p. 1765. writes, "the Abexiins [Abyssinians] and Arabians, such as are free, do serve in all India for saylers or seafaring-men."

[6] Plin. lib. vi. c. 28. Arabes in universum gentes ditissimæ, ut apud quas maxime opes Romanorum Parthorumque subsidant, vendentibus quæ a mari aut sylvis capiant, nihil invicem redimentibus.

the Mediterranean, so is there the strongest evidence to prove, that the Tyrians[7] obtained all these commodities from Arabia.

PETRA. KINGDOM OF IDUMEA. NABATHEANS.

III. But if Arabia was the centre of this commerce, Petra[8] was the point to which all the Arabians tended from the three sides of their vast peninsula[9]: here, upon opening the oldest history in the world, we find the Ishmaelites, from Gilead, conducting a caravan of camels loaded with the spices[10] of India, the balsam and myrrh of Hadramaut; and in the regular course of their traffic, proceeding to Egypt[11] for a market. The date of this transaction is more than seventeen centuries prior to the Christian era; and, notwithstanding its antiquity, it has all the genuine features of a caravan crossing the Desert at the present hour.

It is this consideration, above all others, which makes the Petra we have arrived at with the Periplûs, an object the most

[7] See Herodotus, who says the name of Cinnamon is from the Phênicians.

[8] Agatharchides Huds. p. 57. Πέτραν καὶ τὴν Παλαιστίνην . . . . . εἰς ἣν Γερραῖοι καὶ Μιναῖοι, καὶ πάντες οἱ πλησίον ἔχοντες τὰς οἰκήσεις Ἀραβες, τόν τε Λιβανωτὸν, ὡς λόγος, καὶ τὰ Φορτία τὰ πρὸς ἐνωδίαν ἀνήκοντα, ἀπὸ τῆς χώρης τῆς ἄνω καταγεσιν. And Pliny, lib. vi. c. 28.: huc convenit bivium eorum qui Syriæ Palmyram petiere et eorum qui ab Gaza veniunt. And again: in Pasitigris ripa, Forath, in quod a Petra conveniunt.

[9] The sea coast of Arabia is more than 3,590 miles.

[10] In the thirteenth chapter of Exodus the spices of India, and the gums and odours of Arabia, are mentioned by name; and it is not assuming too much to suppose that the spices here mentioned are from India also: the term used is נְכֹאת, Necoth, which signifies any thing bruised or brayed in a mortar, as spices are reduced in order to use them with our food. צֳרִי, Tseri, is a gum or balsam; and לֹט, Lot, is the same, evidently marking the produce of Arabia. See Parkhurst in voce. See also Gen. xxv. 18.; and Cumberland's Origin of Nations, p. 210.

[11] Genesis, xxxvii. 25.

worthy of our curiosity; for Petra is the capital of Edom or Seir, the Idumêa or Arabia Petrêa of the Greeks, the Nabatêa, considered both by geographers, historians, and poets, as the source of all the precious commodities of the east. And as Idumêa is derived from Edom, or Esau the son of Isaac, so is Nabatêa deduced from Nebaioth the son of Ishmael. There is a secondary connexion also between the families, for Esau married Bashemath [12], the sister of Nebaioth. Little respect as has been paid to the genealogies [13] of scripture by some writers of the present day, it is still to be considered that the Bible may be tried by the rule of history as well as inspiration, and that the traditions of the Arabians are in harmony with the writings of Moses; for they universally acknowledge Joktan [14], the fourth from Shem, as the origin of those tribes which occupied Sabêa and Hadramaut, that is, Yemen and the incense country. They constantly refer to Ishmael the son of Abraham, as the father of the families that settled in Hejaz, which is Arabia Deserta; and to Edom as the ancestor of the Idumêans, who occupied Arabia Petrêa. These form the three [15] general divisions of this vast country and nation, as extraordinary for the preservation of its manners, as its liberty; and which is continuing at this day to fulfil one of those prophecies which assure us of the truth of that History in which these families are recorded.

[12] Gen. xxxvi. 3.

[13] See Gibbon, vol. v. p. 179. note 21. and p. 197.

[14] Gen. x. 26, 27. the son of Joctan Hazarmaveth, is equivalent to Hadzramauth, or Hadramaut.

[15] The Arabians divide their country into five, taking in Oman on the south, and on the eastern side Jemama, or making a distinct part of the Tehama, or country below the mountains. See Schultens, Index Geog. in Vita Saladini.

The name of this capital, in all the various languages in which it occurs, implies a rock [16], and as such it is described in the Scriptures, in Strabo, and Al Edrissi; but it is a rock supplied with an abundant spring of water, styled Thomud by the Nubian, which gives it a distinction from all the rocks [17] in its vicinity, and constitutes it a fortress of importance in the Desert. Strabo did not visit it himself, but describes it from the account of his friend Athenodôrus the philosopher. Athenodôrus spoke with great admiration of the people, their civilized manners and quiet disposition. The government was regal; but it was the custom for the sovereign to name a minister [18], who had the title of the king's brother, in whose hands the whole of the power [19] seemed chiefly to reside; such a minister

[16] Thomud gives a name to the Thamydêni of the Greeks in this neighbourhood, and is sufficiently acknowledged by the Oriental writers. The springs of Thomud might give rise to a river, which Pliny mentions, lib. vi. c. 18. and which d'Anville carries into the Lake Asphaltis.

[17] The names are,

Rekam; Numbers, xxxi. 8. Joshua, xiii. 21. Bochart. Canaan, lib. i. c. 44.
Rakim.
Rokom.
Rekemè.
A Rekeme; quæ Græcis vocatur Petra. Josephus.
Arkè. Josephus.
Sela; from סֶלַע, a rock. Heb.
Hagar, a rock. Arab^ck. Herbelot in voce.
חַר, Har. Heb.
Arak, Karak, Krak de Montreal. Crusaders.
Petra, a Rock. Greek.
The Rock, pre-eminently. Jerem. xlix. 16. See Blaney in loco.

But see Schultens (Index Geog. ad vitam Saladini), where he informs us that Hagar and Krak are not Petra, though in the neighbourhood. Petra, he says, is Errakym, the same as the Rekeme or Rakim of Josephus. See Voc. Caraccha, Errakimum, Sjaubech, ibid. The mistake of one for the other he imputes to Bernard, Thesaurarius de Acquisit. Terræ Sanctæ, xxii. 2. 5. It is in lat. 31° 30′ 0″, Abilfeda. Which, if true, makes it no more than 87 miles from Aila, for Aila he places in 29° 8′ 0″; but Schultens says, Petra is in 28° 30′ 0″ from Abilfeda; if so, it is only 25 Roman miles from Aila. Carak is mentioned as well as Hagjr, by Abilfeda, Reiske, p. 43. where the Moslems were defeated in their first conflict with the Romans.

In the route from Gaza to Karak there are still the ruins of thirty villages, and remains of buildings, pillars, &c. indicating the former wealth of the country. Volney, Syria, p. 212.

[18] ἐπιτροπὸς, as literally a *vizir* as it can be rendered.

[19] Josephus Antiq. xvi. p. 734.

(or vizir, as we should now call him) was Syllêus in the reign of O'bodas and A'retas, who makes so conspicuous a figure in the history of Joséphus, and who was tried and executed at Rome, according to Strabo, for his treachery to Elius Gallus.

Moses was forbidden to molest the sons of Edom in his passage through the wilderness; but that there was then a considerable commerce in the country we have reason to conclude, from the conquest of Midian [20], in its neighbourhood, by Gideon [21], not many years later; when gold is described as abundant among the Midianites, and their wealth in camels a proof of the traffic by which they subsisted. In the reign of David, Hadad [22] the prince of Edom was driven out, and Hebrew garrisons were placed in Elath and Ezion Geber, where Prideaux supposes that David commenced the trade of Ophir [23], which was afterwards carried to its height by Solomon.

And here, perhaps, it will be expected that the trade to Ophir should be examined, which has so much divided the opinions of mankind, from the time of Jerom to the present moment; but as I have nothing decisive to offer upon the

[20] Midian is the country of Jethro, on the Elanitick Gulph, called Madien by the Arabs, and Jethro, Scioaib. Al Edrissi, p. 109.

[21] Judges, viii. 24. the people are called Ishmaelites. Gideon for his reward demanded the ear-rings of the men, and the chains on the camels' necks: the decoration bespeaks the value of the animal.

[22] Hadad fled into Egypt for protection, a proof of the connection between the two countries; and his marriage with Pharaoh's daughter proves his rank and estimation. 1 Kings, xi. 19. He attempted to recover Edom in the latter end of Solomon's reign.

[23] David had treasured up three thousand talents of the gold of Ophir, 1 Chron. xxix. 4.; but this does not prove the voyage, for the gold of Ophir was a general expression. See Job, xxii. 24. xxvi. 16. Psalms, &c. &c. lxv. 9. See Prideaux's Connections, p. 4.

question, I shall only state my reasons for acceding to the opinion of Prideaux and Gossellin, who confine it to Sabêa.

For I neither carry Ophir to Peru[24] with Arius Montanus, or to Malacca with Josêphus, or to Ceylon with Bochart, because I consider all these suppositions as founded upon no better evidence than the mention of gold in those countries; but our choice must lie between the coast of Africa and Sabêa. Montesquieu, Bruce, and d'Anville, have determined in favour of Africa, principally, I think, because gold has always been an export from that country, while the precious metals were usually carried to Sabêa, to purchase the commodities of the east. I allow great weight to this argument; and I admit the probability of d'Anville's supposition, that the Ophir of Arabia might naturally produce an Ophir on the coast of Africa, which should, by an easy etymology, pass into Sophir, Sophar, Sopharah el Zange, or Sophala: but I by no means subscribe to the system of Bruce, which he has displayed with so much ingenuity and ostentation; and which he thinks established by the discovery of an anomalous monsoon prevailing from Sofala to Melinda. A sensible[25] writer has denied the existence of any such irregularity, and appeals to Halley[26], Parkinson, and

[24] See the ridicule of this idea by Jos. Scaliger, Epist. 237. Puto Arium Montanum illius *joculatoriæ* interpretationis autorem esse.

[25] In the Gentleman's Magazine, 1793, p. 222.

[26] Halley's account is to be found in the Philosophical Transactions, 1686, p. 153; in which he says, that in the south-west monsoon the winds are generally more southerly on the African side, and more westerly on the Indian. So far he is directly adverse to Bruce's system; but he adds, that near the African coast, between it and the Island of Madagascar, and thence to the northward as far as the line, from April to October there is found a constant fresh S.S.W. wind, which, as you go more northerly, becomes still more westerly. What winds blow in these seas during the other half year, from October to April, is not easy to learn, because navigators always return from India without Madagascar: *the only ac-*

Forrest; and if the irregular monsoon is annihilated, nothing remains in favour of his hypothesis but the duration[27] of the voyage. The duration it should seem easy to account for, upon a different principle; for the navigators were Phênicians, and we learn from Homer[28] their method of conducting business in a foreign port. They had no factors to whom they could consign a cargo in the gross, or who could furnish them, on the emergence, with a lading in return; but they anchored in a harbour, where they were their own brokers, and disposed of their cargoes by retail. This might detain them for a twelvemonth, as it did in the instance to which I allude; and if the Phênicians traded on the Eastern Ocean, as they did in the Mediterranean, we may from this cause assign any duration to the voyage which the history requires.

But my reasons for adhering to the opinions of Prideaux and Gossellin are, first, that Ophir[29] is mentioned[30] with Havilah and Jobab, all three sons of Joktan; and all of them, as well as Joktan, have their residence in Arabia Felix, most probably

count obtained, was, that the winds are much easterly hereabouts, and as often to the north of the true east, as to the southward of it.

The last sentence is all that Bruce has to build his anomalous monsoon on; and it does not prove an anomalous monsoon, but a fluctuation in the regular one.

" The west winds begin the first of April " at Socótora; the eastern monsoon the 13th " of October, continues till April, then fair " weather till May. Neither have they more " than two monsoons yearly: west monsoon " blows at Socótora all south, east monsoon, " all north. After the 25th of September " ships cannot depart from the Red Sea east- " ward." Pur. vol. ii. 193. Keeling's Voyage.

[27] Pliny, on a much shorter distance, that is, from Azania to Ocila or Okêlis, makes the voyage five years. Lib. xii. 19.

[28] Odyssey, o. 454.

[29] Michaelis (Question xxxix. proposed to the Danish Travellers) concludes Ophir to be in Arabia, from the same text of Genesis. In the same question he recommends inquiry to be made after native gold in Arabia. The account of the gold of Ophir in Scripture cannot be affected by the result. Silver is not now found at Carthagena in Spain, where the Phênicians, Carthaginians, and Romans, obtained it in great abundance.

[30] Genesis, x. 29.

beyond the Straits; and secondly, because the voyage to Ophir seems in consequence of the visit of the queen of Sheba to Jerusalem: it is immediately subjoined[31] to it in the same chapter; and Sheba is Sabêa[32], or Arabia Felix, as we learn with certainty from Ezekiel[33]. It is particularly added, that the royal visitant brought a present of spices: "there were no such spices as the queen[34] of Sheba gave to Solomon."

I do not wish to conceal an objection to this supposition; which is, that spices, although they are taxed, are never mentioned as an article of importation from Ophir. The produce of the voyage is gold, silver, ivory, almug-trees[35], apes, peacocks, and precious stones. But as on the one hand this failure in the invoice will argue much more forcibly against any of the more distant Ophirs which have been assumed; so on the other, it is no proof against Sabêa, that several of these articles are not native; for these, and many more than are enumerated,

[31] 1 Kings, x. 10, 11. See Gossellin Recherches, tom. ii. p. 121. and Volney, Syria, p. 170.

[32] Cosmas Indicopleustes supposes the queen of Sheba to be the queen of the Homerites; that is, in his age, the Homerites were masters of Sabêa. He gives a very rational account of the trade of these Homerites, or Sabêans rather, with Africa, for the spices which the queen of Sheba brought; their intercourse with the Red Sea, Persia and India, and Zingium or Zanguebar; with the gold obtained thence by the Abyssinians, and brought into Arabia, as it is to this day. See Cosmas in Melch. Thevenot, vol. i. p. 7.

[33] Ezek. xxvii. 22. "The merchants of "Sheba and Raamah, they were thy mer- "chants: they occupied in thy fairs [marts] "with chief of all spices, and with all pre- "cious stones and gold." In this passage the introduction of gold *from* Arabia is specific, and the three articles are the same as they continued to be in the reign of Ptolemy Philadelphus. See Aristeas.

[34] 2 Chron. ix. 9. from Gossellin.

[35] Almug and Algum are both read in scripture; and Shaw, p. 422. cites the opinion of Hiller, in his Hierophyticon, that אגל גומים, Agal Gummim, is, liquidorum guttæ, gum. But in scripture the wood does not appear to be brought for its gum, but for use; and musical instruments were made of it, 1 Kings, x. 12.; as Shaw observes, who supposes it to be cypress, still used by the Italians for that purpose. See 2 Chron. ix. 21.

Michaelis (Question xci. proposed to the Danish Travellers) finds the same difficulty, and recommends farther inquiry.

would certainly be found in Sabêa, if the Arabians were navigators in that age, as we have every reason to suppose they were.

The evidence that Solomon obtained gold from Arabia is express; and as our early authorities notice gold as a native produce among the Debæ[36] of Hejaz, so may we conclude that the gold of Africa always found its way into Yemen through Abyssinia, as it does at this day. The import of gold, therefore, we carry up as high as the reign of Solomon, and bring it down to the time of Ptolemy Philadelphus, king of Egypt; for we learn, from the testimony of Ezekiel and Arísteas[37], that spices, precious stones, and gold, were brought by the Arabians[38] into Judêa. I do not wish to lay more stress upon this testimony than it will bear; but it is not unreasonable to suppose, that the circumstances of this commerce were similar, in an early age, to those of a later period. The removal of these difficulties will shew the inducement which persuades me to join in opinion with Prideaux and Gossellin, upon a question that

[36] Deb is said to signify gold, in Arabick. All the kings of Arabia brought gold and silver to Solomon. 2 Chron. ix. 14.

[37] Πολὺ δὲ πλῆθος καὶ τῶν ἀρωμάτων καὶ λίθων πολυτελῶν καὶ ΧΡΥΣΟΥ παρακομίζεται διὰ τῶν Ἀράβων εἰς τὸν τόπον. Arísteas, p. 40. Ed. Wells, Oxon. 1692. If Arísteas is not good evidence for the Septuagint version, his testimony may be taken for the transactions of the age in which he lived. I imagine this to be the same commerce as is noticed by Strabo (lib. xvi. p. 781.), where we learn that the Tyrians traded through Rhinocolûra to Petra and Leukè Komè. Harris (vol. i. p. 379.) supposes the Tyrians to be masters of Rhinocolûra; which knowledge he seems to draw from Prideaux (Con. part. ii. p. 56. & part i. p. 7.): but if it depends on the passage of Strabo, it does not follow that the Tyrians were masters of the place, however their trade passed through it. But Rhinocolûra, by its situation on the limits of Palestine and Egypt, was certainly adapted in a peculiar manner for keeping open the communication. Prideaux's account of Idumêa and this trade (part i. p. 17.) is highly accurate and comprehensive; but we have no date of the fact recorded by Strabo.

[38] διὰ τῶν Ἀράβων, perhaps, through the country of the Arabians. Agatharchides is also an evidence in favour of the exportation of gold from Arabia: Ἔτοι πολύχρυσον τὴν Πτολεμαΐδα Συρίαν πεποιήκασιν, p. 64.

has been more embarrassed by hypothesis, and distracted by erudition, than any other which concerns the commerce of the ancients.

The participation of Hiram in this concern is founded upon necessity as well as policy; for if Solomon was master of Idumêa, the Tyrians were cut off from Arabia, unless they united with the possessors; and whatever profit Solomon might derive from the import, the whole of the export on the Mediterranean would be to the exclusive emolument of Tyre. Here the Greeks found the commodities of the east, or received them in their own ports from the hands of the Phênicians; for they were not allowed to enter the harbours of Egypt till the reign of Psammêtichus; and the very names of the articles they obtained were derived from the Phênicians, as we are informed by Heródotus [39].

The possession of Idumêa by the kings of Judah continued little more than an hundred years, to the reign of Jehoram, when the Idumêans revolted [40], and were not again subdued till after an interval of eighty years, in the reign of Uzziah [41]. Seventy years after this, the Syrians [42] seized upon Elath; and here terminates the trade of Ophir, in regard to Israel; and

[39] Τὸ δὲ δὴ κινάμωμον ἔτι τούτων θωυμαστότερόν συλλέγουσι· ὅκου μὲν γὰρ γίνεται, καὶ ὅτις μιν γῆ ἡ τρέφουσά ἐστι, ἐκ ἔχουσι εἰπεῖν. . . . . ὄρνιθας δὲ λέγουσι μεγάλας φορέειν ταῦτα τὰ κάρφεα, Τὰ ἡμεῖς ἀπὸ Φοινίκων μαθόντες κινάμωμον καλέομεν, lib. iii. p. 253.

"The cinnamon is still more extraordinary; "for where it grows, or what country pro- "duces it, they cannot say; only the report "is, that birds bring the little rolls of the "bark which we, from the Phênicians, call "cinnamon." Herodotus supposes it, indeed, to come from the country where Diony'sus, or Bacchus, was born, that is, India; though there is a fable also that he was born in Sabêa: but its progress is clearly marked through Arabia to Tyre, and thence into Greece with its Tyrian name.

[40] 2 Kings, viii. 22.

[41] 2 Kings, xiv. 22.

[42] 2 Kings, xvi. 6.

probably in regard to Tyre, with the capture of that city, about an hundred and sixty years later, by Nebuchadnezzar.

Whether Nebuchadnezzar over-ran Idumêa, is a question that history[43] has not resolved; or whether he besieged Tyre with any view of opening a communication with the Mediterranean, is equally unknown; but that he had some plan of commerce on the gulph of Persia in contemplation, we may judge from a curious fragment of Abydênus[44], which informs us, that he raised a mound or wall to confine the waters at the mouth of the Tigris[45]; that he built the city of Terêdon, to stop the incursions of the Arabs; and opened the Naharmalcha in Babylonia, which unites the Tigris with the Euphrates. These transactions may lead us to suppose that this conqueror would turn his attention to Idumêa, and the gulph of Arabia, as well

[43] It is highly probable, from the woe of Edom in the 49th chapter of Jeremiah.

[44] Scaliger Emend. Temp. Fragm. p. 13.

Ναβυχοδονόσορος .... τόν τε Αρμακάλην ποταμὸν ἐξήγαγεν ἐόντα κέρας Ἐυφράτεω ..... ἐπιτείχισε δὲ καὶ τῆς Ερυθρῆς θαλάσσης τὴν ἐπίκλυστιν, καὶ Τερηδόνα πόλιν ἔκτισε κατὰ τὰς Ἀράβων ἐισβολάς.

There seems also to be another canal mentioned by the name of Akrákanus, and a bason above the city of the Sipparênians; and that these were all formed with a commercial view, we may judge by what Arrian says of Terêdon: "that it was, when Nearchus arrived "there, the mart to which the merchants "brought their libanon, and other odorife-"rous drugs, from Arabia." Arrian, lib. viii. p. 357. Διείδωτις, ... ἵνα λιβανωτόν τε ἀπὸ τῆς ἐμπορίης γῆς οἱ ἔμποροι ἀγινέωσι, καὶ τὰ ἄλλα ὅσα Συμιήματα ἡ Ἀράβων γῆ φέρει. This (ἐμπορίη γῆ) mercantile country may be supposed equivalent to Grane, or to Gerrha, the modern El-Katif; and the whole corresponds with the traffic which now exists between those ports and Basra; so constant is the nature of this commerce, from the time of Nebuchadnezzar to the present hour. Have we not therefore a right to assume it in ages antecedent to the Babylonian monarchy? The continuance of it in after-times we learn from Nearchus, Strabo, &c.; and when Trajan was here, in the Parthian war, he saw a vessel setting sail for India, which excited in his mind the remembrance of Alexander, and a desire of invading India, if he had not been so far advanced in years.—Xiphilinus in Trajano.

[45] It is called the inundation of the Erythrêan Sea, and is in reality at Apphadana, in the mouth of the Shat el Arab; in which neighbourhood mounds of this sort are still preserved. See Voyage of Nearchus, p. 436.

as to the Persian Gulph and Tyre; and if this was his object, the conquest would have been easy, either when he was in Judêa, or during his march into Egypt.

From this time till the death of Alexander we have no account of Idumêa; but soon after that event, we meet with two expeditions of Antígonus directed against Petra; one under Athenêus[45], and another conducted by Demétrius his son. Both had an unfortunate termination; but the country was still harassed by the rival sovereigns of Syria and Egypt, experiencing the same fate as Judêa, from its similar situation between both, sometimes subjected, and sometimes free; till there arose a dynasty at Petra, parallel to the Maccabees at Jerusalem; and, like them, partly independent and partly under the influence of the more powerful monarchies on either side.

I give the following catalogue of Sovereigns, as well as I have been able to collect it from Josêphus, without vouching for the correctness of the extract, or supposing the list to be complete; but such as it is, it will elucidate the commerce which has been proved to exist in this country, and bring the history of it down to the period when the Romans obtained an influence in the government, and the command of the coast; in which state it was found by the Author of the Periplûs:

[45] Diodorus, lib. xix. p. 391.

Years before Christ.

The two expeditions of Antigonus into Idumêa, as nearly as we can state them, were undertaken in the years before our êra, 309 and 308.

309.
308.

Malchus[47]—is the first king of Idumêa at Petra, mentioned by Josêphus (Antiq. p. 569. Hudson's ed[n]; and in the first of Maccabees, xi. 39.) he is styled Simalcue; and had protected Antiochus VI. restored to the throne of Syria, in 144, by Dió-

144.

dotus, called Tryphon.

A'retas—assisted the city of Gaza besieged by Alex-

126.

ander Sebína, about the year 126. (Josêphus Antiq. 595.)

O'bodas[48]—is either the same as A'retas, or his successor within the year; he defeated Alexander

125.

about the year 125. (Josêphus Antiq. 596.)

A'retas II.—is the king to whom Hyrkánus, of the family of the Maccabees, high priest and king of Judêa, fled, when driven out by Aristo-

[47] Mek, Melek, Malik (Arab[ck]), are all from מֶלֶךְ, a king (Heb[w]). In regard to A'retas, see Josephus, lib. xiv. cap. 2. 4. and lib. i. cap. 6. Bel. Jud. where he mentions the conduct of A'retas in regard to Hyrkanus and Aristobûlus. See also the Universal Hist. vol. vii. fol. ed. Pliny, vi. 28. Strabo, Diodor. 111. 516. an. 730. Trajan in Arabia, Dio. xviii. 777. And Severus. Dio. in Trajano, 948.

Theophanes, p. 124. mentions an A'retha[s], anno 496. 556. 558. p. 207.

Perhaps every one of these princes was styled Malchus, or Malichus, *the* King: but Darius is a proper name, though Dara is said to signify King, Emperor, or Royal. Si Malcue is some corruption or other of Malchus. A'retas is the Greek form of El Haretsch, as Antipater is of Antipas. El Haretsch occurs often. Mahomet married the daughter of an El Haretsch. Abilfeda. Reiske, p. 43.

[48] O'bodas is written Obéidas by Strabo, and O'bedas by others. It seems to be the same name as Abudah, familiar to every ear as an Arabian name.

Years before Christ.

bûlus. A'retas restored him with an army of 50,000 men, about the time that Pompey came to Damascus in the Mithridatic war, in the year

63. 63. In this reign commenced the connection of the Maccabees with Antipas, or Antipater, the Idumêan, and the father of Herod, which terminated in the destruction of the whole family. (Josêphus Antiq. 608, 609.) Pompey took Petra (Dio, Latin Copy, p. 23.); and from that period the kings of Idumêa were, like the other kings in alliance with Rome, dependant, obliged to furnish auxiliaries on demand, and not allowed to assume the sovereignty without permission of the senate, and afterwards of the emperors. The interval between O'bodas and this A'retas I have not been able to fill up.

Malchus II.--must have commenced his reign before

47. the year 47; because in that year Cesar was at Alexandria, and Malchus is mentioned by Hirtius as one of the allied kings to whom Cesar sent for succours. (De Bello Alexandrino, p. 1. Hudson. Periplûs, p. 11.) This Malchus [49] was in Judêa when the Parthians took Jerusalem, and restored Antígonus; at which time Herod fled to Petra. (Josêphus Antiq. 644.) The Parthians were defeated by Ventidius in the

39. year 39 (Dion Cassius, Lat. p. 235.); and

[49] He was fined by Ventidius. Dio, lib. xlviii. 234. Lat. ed.

Years before Christ.

Malchus was still king in 30 (Josephus Antiq. 648. 677.); he is styled Malichus by Josêphus. (Bel. Jud. 990.)

O'bodas II.—must have commenced his reign before

24. the year 24; because in that year Elius Gallus invaded Arabia, attended by Syllêus, minister of O'bodas, and Syllêus was tried at Rome and executed for his treachery, according to Strabo (p. 783.); but Josêphus says, on account of charges brought against him by Herod, whose cause was pleaded by Nicoláus of Damascus. This trial did not take place till the reign of the successor of O'bodas. (Jos. Antiq. 728, et seq.)

A'retas III.—seized the throne on the death of

12. O'bodas, about the year 12, without applying to Rome for the consent of the emperor (Jos. Antiq. 736.); and by that act incurred the displeasure of Augustus, which however he appeased. The trial of Syllêus took place in this reign, who was accused of poisoning O'bodas, and attempting the life of A'retas, among the other charges brought against him. This

Years after Christ.

36. A'retas, or another of the same name, was on the throne as late as the year 36 after Christ, which is the last year of Tiberius; for Vitellius, proconsul of Syria, was preparing to march into Idumêa, against a sovereign of the same name, but was stopped by that event. (Jos. Antiq. 728.

Years after Christ. 36.

736. 755.) It is in this reign we may place the visit of Strabo's friend, Athenodórus, to Petra, who found it, as described above, in a civilized and flourishing state.

Aretas IV.—whether another, or the same as the last, is dubious.

Much disappointment have I felt in not being able to discover any successor to A'retas, in Josêphus or Dion Cassius; because I have great reason to believe, that in his immediate successor, or in the following reign, we should have found another Malchus, or Málichus, the same who is mentioned in the Periplûs as the sovereign of Petrêa, when the author frequented the port of Leukè Komè. We learn, however, from this brief account, the commencement of the Roman influence over this government under Pompey, and the continuance of it till the death of Tiberius; and it will hence appear very evident, how a Roman garrison was introduced into Leukè Komè, and the revenues of the port diverted from the possession of the native kings into the Roman treasury. The immediate date of that transaction I cannot fix; for Elius Gallus appears to have had little knowledge of Leukè Komè till he was conducted[50] thither by Syllêus; and, as he re-embarked from another port, he had not the opportunity of leaving a garrison at Leukè Komè on his return. This makes it highly probable that the introduction of this garrison was in the reign of Claudius, who evidently collected a revenue from the coast of Arabia, as we

[50] But he staid there all the latter part of the summer, and the winter, Strab. xvii. p. 781. so that he might well leave a garrison there at his departure.

learn from the circumstances related by Plókamus, and might well commence his system from the head of the gulph.

It may be here observed, that the princes of this dynasty at Petra are almost universally called kings of the Nabatêans by the historians; and the prevalence of this tribe of Nebaioth over the Idumêans is placed by Prideaux [51], with his usual accuracy, during the Babylonish captivity, agreeing admirably with the existence of their sovereignty in the reign of Antígonus, and countenanced by Strabo [52], who mentions the expulsion of the Idumêans. If this, therefore, be the origin of the dynasty, its termination is in the reign of Trajan, when Petrêa was reduced into the form of a Roman province [53] by Palma [54], his lieutenant [55]. Still, under the latter empire, we meet with an A'retas in Procópius; and possibly, according to the fluctuating power of the empire, it was at times subject, and again independent, as the change of circumstances took effect, till it was finally reduced by Mahomed in person. This is a fact so sin-

[51] Prideaux, Con. vol. i. p. 9.; vol. ii. p. 155.

[52] Strabo, lib. xvi. p. 760.

[53] Under the name of Palæstina Tertia; there is a coin of Adrian's, with this inscription.

[54] See Xiphilinus Ed. Basil. p. 553. in Trajano, who mentions likewise, p. 557. that Palma was afterwards put to death by Adrian.

[55] It is evident that the Roman power was never very firm in this province, at least under the latter empire; for Justinian was obliged to subdue it after a considerable lapse of independence; and Procópius, Cedrênus, and Theóphanes, constantly notice an A'rethas, either at Petra or in Idumêa, who was considered as an Arab sovereign in the Roman interest, in opposition to an Al Mondar under the protection of Persia. The seat of this Al Mondar was at Hira, on the Bahr Nedjeff, a lake near the Euphrates [see d'Anville's Map of the Euphr. and Tigris]; and these Arabian powers seem usually to have been set in motion by the Romans and Persians, whenever a war was about to commence between the two empires. See Theóphanes Byz. Hist. p. 496. Univers. Hist. p. 272. fol. ed. which says, A'retas is Al Hareth. O'bodas, Abd. Wad. Theóphanes expressly mentions the defeat of an A'rethas, and the restoration of the tribute, or custom, on India goods, anno 27, Anastasii, that is, the year 488. See also the year 556, p. 203. where an A'rethas, the sheik appointed by the Romans, complains of the Persian sheik Abar, son of Al Mondar; another A'rethas was with Belisarius in Isauria. Procop. Hist. Arcan. p. 8.

gular that, as I shall make it the termination of my inquiries, the reader will pardon a digression that is foreign to the subject. For Mahomed marched against this country with an army of thirty thousand men, of which one-third was cavalry: he took Hagjr [56], the capital of the Tschamudites [57]; and John, the prefect of Aila [58], submitted to pay a tribute of three hundred pieces of gold [59]. Now if Hagjr be not the Hagar of the Hebrews, the Petra of the Grecks, it is at least a hill fort in the same country, and maintained the same rank as the seat of government. Aila is the Elath of the scriptures, still at that period under the power of Constantinople (if we may judge from the name of John the governor), so late as the reign of Heráclius. This expedition is the more remarkable, as it is the first successful attempt of the Mahomedans beyond the limits of the Hejaz [60], and the prelude to the conquest of Syria by the immediate successor of the prophet. This expedition, therefore, it was, which opened the way to all their succeeding victories over the declining power of the Romans in the east.

[56] See the account of Petra, supra.

[57] The Thamydeni of the Greeks.

[58] Abilfeda Reiske, p. 52.

[59] Trecentos nummos aureos. If it is the Roman aureus, the value varied, according to Arbuthnot, from 1*l.* 4*s.* $3\frac{3}{4}$*d.* to 16*s.* $1\frac{3}{4}$*d.* which admits a medium of twenty shillings. Aila was no longer the port of the trade to Ophir.

[60] See Gibbon, vol. v. p. 245. The superstition of a bigot never went farther in defence of his faith, than the fanaticism of philosophy has carried Gibbon, in softening the vices, cruelty, hypocrisy, and imposture, of Mahomed, or in amplifying his courage, his eloquence, and abilities as a statesman or a general; but at the same time, notwithstanding this defect (which is radical), and notwithstanding the detestable comparisons which he insinuates, the extent of his research, the use, selection, and arrangement of his materials, form one of the most brilliant specimens of his talents as an historian. In regard to this last transaction of Mahomed, I apprehend Gibbon is mistaken: he says, the prophet received the submission of the tribes from the Euphrátes to the Red Sea; but according to Abilfeda, he subdued Hagjr and Aila only; and if the tribute was no more than 300 aurei, the conquest was of importance only as it opened the road to Syria. See Abilfeda, Reiske, Lipsiæ, 1754, p. 52.

This account of Arabia Petrêa, from the time of the Patriarchs to the rise of the Mahomedan power, is essentially connected with the object of the present work; because the whole commerce of the east originally passed through this province to Phênicia, Tyre, and Egypt; for the Minêans, who were the conductors of the caravans from Sabêa to Hadramaut, and the Gerrhêans from the gulph of Persia, both pointed to this centre; and notwithstanding that the caravans decreased in proportion to the advance of navigation, still Petra was a capital of consideration in the age of the Periplûs: there was still a proportion of the trade passed from Leukè Komè to this city, and its princes maintained a rank similar to that of Herod in Judêa. In all the subsequent fluctuations of power, some commercial transactions[61] are discoverable in this province; and if Egypt should ever be under a civilized government again, Petrêa would be no longer a desert.

Whether the Idumêans had been navigators previous to the time of Solomon and Hiram; and whether those princes occupied the ports of Idumêa in order to turn this navigation to their own advantage, or were the first to venture on it themselves, must be a matter of conjecture; but that the Arabians of this province, or more probably of those farther to the south, were the first navigators whom history mentions, upon the Indian Ocean, is evident: first, from Nearchus[62], who found the traces of it on the coast of Gadrôsia; and secondly, from Agathárchides, who distinctly mentions the great ships in the

[61] Γάζην τόμιον . . . . . τῆς ἐρήμου κατὰ τὸ Σίναιον ὄρος πλησίαν σφόδρα. Cedrenus, 429.
Gaza, the key of the desert of Sina, a country *very rich*.

[62] He found Arabick names of places, a pilot to direct him, and vessels of the country, at Apóstani, in the gulph of Persia. See Voyage of Nearchus, p. 249.

ports of Sabêa which traded to India; and if the works of Eratósthenes[63] were extant, we should learn how the Greeks obtained their knowledge to the east of Cape Comorin, before any fleets had sailed from Egypt beyond the Straits of Bab-el-mandeb.

But whatever previous sources of information we might trace, it is from the Periplûs itself that we can discover no less than six different courses of the ancients in these seas, all prior to the age of the author, or practised by different navigators at the time he wrote.

IV. VOYAGES DISTINGUISHABLE IN THE PERIPLUS.

I. The first is the voyage, described in the two previous books, down the coast of Africa to Rhaptum; shewing that the Arabians had settlements in that country, before it was visited by the Greeks from Egypt.

II.[64] Secondly, we are informed of the two distinct courses within the Gulph: one from Muos Hormus, across the head of the gulph to Leukè Komè, and thence down the Arabian

[63] Marcian of Heraclea informs us, that Eratósthenes took the whole work of Timósthenes, preface and all, as it stood, and in the very same words: this confirms an opinion that I have already ventured to give, that Eratósthenes was more of a geometrician than a geographer. Marcian, indeed, does not speak very highly of Timósthenes, and yet, by this account, it should seem that Eratósthenes's knowledge of the Thinæ was from Timósthenes, who had commanded the fleet of Ptolemy Philadelphus on the Indian Ocean, and had gone farther down the coast of Africa than any other Greek of his age. See Marcian in Hudson, p. 64.: he calls him Ἀρχινυδερνήτης τῦ δευτέρυ Πτολεμάιυ. Strabo styles him Ναύαρχος. See Pliny, Hardouin, p. 132. Marcian mentions likewise Sosander, a pilot, who wrote on India. Still there is an obscure knowledge of the Thinæ, and the Golden Chersonese, prior to all these geographers, as appears from the Treatise de Mundo in Aristotle; if that be a genuine work of the philosopher.

[64] Periplûs, pp. 12. 14.

TERRARUM
Hibernia
Scotia
Anglia
Gallia
Hispania
Occidens
Gades
MARE
Mauritania
Regio VII
Montium
W

A QUILO
TABULA ex MARINO SANUTO
Desumpta
Quæ Conservatur
Inter Gesta DEI per Francos
TOM. II. p. 281
ARABUM NORMA Depicta
Anno 1323
to front Dissertation IV.
Periplus Part II.
MARE GERMANICUM
OCEANUS SEPTENTRIONALIS
MARE TENEBROSUM
Occidens
Oriens
Auster
Scotia
Anglia
Hibernia
Gallia
Hispania
Gades
Mare Mediter:
Mauritania
Numidia
Italia
Germania
Polonia
Hungaria
Ister
Dacia
Norwegia
Suecia
Rutheni Schismatici
Regio non habitabilis propter algorem
Tanais
Georgia
Albania
Montes
Mare Caspium
Scythia
Hic Tartari inclusi
Caspium Pons & Mare
Asia
Italia
Perta
Ferrea
Colchos
Polonia
Antiochia
Jerusalem
Tigris
Euphrates
Sinus Persicus
Arabia Mecca
Mare Rubrum
Ethiopia inferior
India parva
Multitudo Tartarorum
India Magna
Elephantes nascuntur
Sera Metrop:
India inferior Prov.ae Lohan.
Fines India
Nubia
Nilus
Garamantia
Cyrene
Nigritia
Nigri Fl.
Regio VII Montium
Ethiopia Barb.
Regio non habitabilis propter Calorem
Bedoue
Zinzibar
Insula Piperis
Vehile Isla of Men & Women
Published according to Act of Parliament by W Vincent 7th May 1806.
J Walker Sculp.

coast to Moosa; and another, from Bereníkè to the same port direct.

III. [65] Next to this, we collect a voyage from the mouth of the Straits along the southern coast of Arabia into the gulph of Persia, extending afterwards to Bahrein, El Katif, and Oboleh, in the Shat-el-Arab.

IV. [66] Then follows a passage from the Straits to India by three different routes: the first, by adhering to the coasts of Arabia, Karmánia, Gadrôsia, and Scindi, which terminated at the gulph of Cambay; the second, from Cape Fartaque, or from Ras-el-had, on the Arabian side; and the third, from Cape Gardefan, on the African side, both across the ocean by the monsoon to Muzíris, on the coast of Malabar.

V. [67] After this, we must allow of a similar voyage, performed by the Indians to Arabia, or by the Arabians to India, previous to the performance of it by the Greeks; because the Greeks, as late as the reign of Philomêtor, met this commerce in Sabêa.

VI. [68] And lastly, we obtain an incidental knowledge of a voyage which confirms all that has been advanced concerning the early commerce of the Arabians, previous, in all appearance, to every account we receive from the Greeks, and conducted, certainly, by the monsoon, long before Híppalus introduced the knowledge of that wind to the Roman world.

It is this voyage [69] between the opposite coasts of India and Africa, connected certainly with the commerce of Arabia, but

[65] Periplûs, pp. 19, 20.
[66] Periplûs, pp. 20, 21, 22. 32, 33.
[67] Agathárchides apud Hudson, pp. 64. 66.
[68] Periplûs, pp. 8, 9.
[69] The Oriental geographers confirm the account of this voyage most essentially; for they have a Sephareh el Hind either in Guzerat or the coast adjoining, correspondent to Sefareh el Zinge, or Sophala on the coast of

still capable of being considered in the abstract, which proves, in my opinion at least, the possible existence of this intercourse in ages antecedent to all that history can reach. If it could be believed that the natives of India had been navigators in any age, we might more readily admit their claim in this instance than in any other; for the author mentions, that the imports into Africa are the production of the interior from Barugáza and Aríakè; that is, from Cambay, Guzerat, and Concan: and the articles specified confirm the truth of his assertion; for they are rice[70], ghee, oil of sesamum, cotton, muslins, sashes, and sugar: these commodities, he adds, are brought sometimes in vessels destined expressly for the coast of Africa; at other times, they are only a part of the cargo out of vessels which are proceeding to another port. Thus we have manifestly two methods of conducting this commerce, perfectly distinct: one, to Africa direct; and another, by touching on this coast, with a final destination to Arabia. This is precisely the same trade as the Portuguese found at Melinda and Quiloa, and the same connection with Arabia; and this is the reason that the Greeks found cinnamon, and the produce of India, on this coast, when they first ventured to pass the Straits[71], in order to seek a cheaper market than Sabêa. Still

Zanguebar in Africa. The very names imply an intercourse between these two ports on the opposite continents, similar to the commerce mentioned in the Periplûs. See Abilfeda apud Melchiz. Thevenot, and d'Anville in loco Antiquité de l'Inde.

[70] Periplûs, p. 9.

σῖτος, Wheat.

ὄρυζα, Rice.

βούτυρον, Butter, *i. e.* Ghee.

ἔλαιον σησάμινον, Oil of Sesamum.

Ὀθόνιον { ἡ μονοχή, Cotton Cloths, Muslin. / ἡ σαγματογύνη, Cotton in the Wool, for stuffing Beds, &c.

περιζώματα, Sashes.

μέλι τὸ καλάμινον, / τὸ λεγόμενον σάκχαρι, } Sugar.

[71] The passing of these straits is ascribed to Sesostris by Heródotus and Diodôrus, which, if the whole history of Sesostris be a fable, is still a proof that Heródotus knew some object was to be obtained by the attempt. He adds

it must be doubted, whether this commerce was conducted by natives of India, or Arabians; for Arabians there were on the coast of Malabar, and in such numbers at Ceylon, that Pliny [72]

(lib. ii. p. 109.), that Sesostris advanced into the Erythrêan Sea till he was stopped by shoals; a proof to me, that he entered the Bay Avalites, and went no farther. But Diodôrus (lib. i. p. 64.) carries him by sea to India, and by land, to the eastern coast of China: so little trouble does it cost an historian to convey his hero to the world's end, when he is not embarrassed with circumstances. If any date could be affixed to the reign of Sesostris, if his conquests could be reconciled with the history of the nations he is said to have conquered, I should think it highly probable that he knew of an Indian commerce in Arabia, or Africa, and wished to partake of it; and even as the fact stands, it appears as if Heródotus was fully justified in supposing, that some attempts had been made by the Egyptians to enter the Erythrêan Sea. But the Egyptians seem to have attributed all their wonders to Sesostris, as the Greeks did theirs to Hercules; and it is as difficult to reconcile the date of his reign to reason, as the chronology of the Egyptians to scripture. The truly learned and most excellent translator of Heródotus professes his belief in scripture, and deprecates all conclusions against the scriptures which may be drawn from his chronology: it is a protest of importance, because his first date makes the establishment of Egypt 13,566 years, and the building of Memphis 8,352 years prior to the creation, according to the Mosaical account; and it is not without a sense of the contradiction that we read the following words: "Il est donc constant "que notre historien a été la fidèle interprete "des prêtres Egyptiens, & *qu'il n'y avoit pas* "*la plus légere incoherence dans leur recits.*" Chronol. Herod. p. 222. 1st edit. But M. Larcher will not now be averse to see these priests convicted of an incoherence, which is, an interval of near eleven thousand years between the building of the temple of Ptha by Menes, and the adding a propylêum to it by Moeris. This is about a duplicate of the absurdity which would strike the mind of an Englishman, if he were told that the dome of St. Paul's was built by Adam, and the portico added by Q. Anne.

Since the time that these observations were made, we have another edition of Heródotus by the same excellent translator, who, in the 76th year of his age, repeats his belief in the scriptures, and recalls every thing in his works that may seem of a contrary tendency to the history they contain. I rejoice in the addition of such a name to the catalogue of believers; I admire the fortitude that inspired the profession, and I trust that the example will be efficacious in recalling others to the truth.

[72] Pliny, lib. vi. c. 22. Regi, cultum liberi patris, cæteris, Arabum; that is, the king retained the native worship of the Indian Bacchus, above the Ghauts; while the inhabitants on the coast were Arabians, or had embraced the superstition of the Arabians.

The Portuguese made a Christian king of Candy; but the Dutch and English have been less zealous for their faith than the Arabians, either when Idolators or Mahomedans. In 1804, the English discontinued the stipends to the Christian missionaries or native priests, and left 153,000 souls without spiritual instruction. Mr. Grant's Letter. The Dutch, after expelling the Portuguese about 1654, employed Protestant ministers. See Baldæus in Churchill, vol. iii. Jafnapatam.

represents them as masters of the coast, like the Europeans of the present day, who have confined the native sovereigns to the country above the Ghauts, and have possessed themselves of the level towards the sea; such also was their situation, though under the name of Moors, or Mahomedans, when the modern Europeans met with them again upon their arrival at Calicut, where their influence over the native government long counteracted all the power of the Portuguese.

These are the reasons which induce a supposition, that the whole of this intercourse, on both sides, was in the hands of the Arabians[73]; but it must be left to the determination of those who have been resident in India, how far the superstition of Braminism descends to the Parias, the lower casts, or those who have lost all cast, so as to permit or forbid their venturing on the ocean. That there was an ulterior commerce[74] beyond Ceylon, is indubitable; for at Ceylon the trade from Malacca and the Golden Chersonese met the merchants from Arabia, Persia, and Egypt. This might possibly have been in the hands of the Malays, or even the Chinese[75], who seem to have been navigators in all ages as universally as the Arabians, and both might profit by the prejudices which seem to have excluded the Hindoos from a participation in these advantages.

There appears no method of tracing this commerce through the darkness of the middle ages, but by the few scattered intimations to be collected from Cosmas, William[76] of Tyre, Sanuto[76],

[73] I find this connection of Arabians with India supported by Pococke, Sir Wm. Jones, and Sir Wm. Ouseley. See Ebn. Haukal, p. 291.

[74] Pliny, when he mentions the embassy from Ceylon.

[75] Marco Polo, lib. iii. c. 1. speaks much of *Indian* ships, but they seem to be *Chinese*.

[76] See Bergeron Traité sur la Navigation.

Renaudot's Arabian Voyagers, and Marco Polo; but their general testimony is in favour of the preceding suppositions, and which, as I have no system to maintain, I should abandon as readily as I have adopted, if ever the weight of evidence should preponderate against them. In the time of Marco Polo, the Arabians had not only increased on the coast of India, but made considerable progress in extending the doctrines of the Coran: he mentions the trade from China[77] which met the trade from the Red Sea, no longer in Ceylon, but on the coast of Malabar; and though he remarks that the Chinese vessels sometimes penetrated farther, even to Madagascar, yet the central mart is manifestly in Malabar, and apparently at Calicut, where the Portuguese found it upon their first arrival. Here, he says, the ships from Aden obtained their lading from the East, and carried it into the Red Sea for Alexandria, from whence it passed into Europe by means of the Venetians.

THE COMPASS.

V. How these voyages were performed in the seas of India or China, without the compass, is a circumstance so extraordinary, that many writers have rather assigned that instrument to the Chinese, than supposed it possible that such voyages should be performed without it. Highly extraordinary

[77] Lib. iii. c. 27. In the 9th century, the age of Renaudot's Arabs, the centre was at Coulam in Travancore. After the establishment of the kingdom of Calicut by Ceramperumal, the trade centered there. M. Polo was in India in the 13th century, 300 years later than Ceramperumal.

it certainly is, that the Chinese, who now never go beyond the limit of Japan on the east, Malacca on the west, or Java on the south, should have sailed to Madagascar in the thirteenth century. Their knowledge must in that age have been proportioned to their adventures; and I would not wish to contest the point with those[78] who would furnish them with means or instruments to qualify them for the undertaking; but Ramusio[79] is clearly of opinion, that Marco Polo did not bring this instrument from China; and that he did not know it himself, because he never mentions it. This negative evidence in regard to China, becomes positive, according to Nicolo di Conti, in regard to India; for he sailed aboard a native vessel on the Indian seas, about the year 1420[80]; and he says expressly they had no compass, but sailed by the stars of the southern pole, the elevation of which they had the art of measuring; and that they had also a method of keeping their reckoning by day or night, with their distance from place to place; that is, as we should speak in modern terms, they had a quarter-staff or astrolabe, and log, but no compass.

The date of this voyage, sixty or eighty years previous to the discovery of Gama, makes it highly interesting; and the information is unique, for Nicolo sailed on board an Indian[81] ship;

[78] Lord Macartney is fully convinced that the Chinese compass is not derived from the Europeans: his reasons for this may be seen in a paper with which he has furnished me (Appendix, No. III.); and has obligingly permitted me to publish with his name.

[79] See Dichiaratione sopra M. Polo, Ramusio, vol. ii. p. 17.

[80] He was absolved by Pope Eugenius IV. in 1444 of apostacy, after having been in India 25 years; so that the date of his voyage, in this instance, may be from 1420 to 1430.

[81] Il naviganti dell' India si governano colle stelle del polo antartico . . . . . & non navigano col Bussulo, ma si reggono secondo che trovano le dette stelle o alte, o basse; et questo fanno con certe lor misure che adoperano, et similmente misurano il camminō che fanno di giorno et di notte, & la distanza che e da un luogo all' altro, et cosi sempre sanno in che

and that the navigators made use of the south polar stars, is a most extraordinary agreement with the account of Ptolemy; who says, they navigated the Indian Ocean in his age by means of the star Canôbus, which they called the Horse. I should have been glad to find the mariners on board this ship had been Arabians; but the description of the vessel is characteristically like those which M. Polo sailed in on the Chinese seas, separated into compartments, which the respective merchants on board hired each for himself and his property; and which were distinctly caulked, so as to prevent a leak in one part affecting any other: such vessels are still in use on those seas, but are more properly Chinese or Malay, than Indian.

The testimony of N. di Conti is direct against the use of the compass in the ships of India, but still it is not conclusive against the Chinese; for Vertoman, or Barthema, in his passage from Borneo to Java, in a ciampan, or small Chinese vessel, expressly mentions, that the pilot[82] had a compass. And this testimony is of greater importance, because the date of his voyage from Borneo must be in 1503 or 1504, as he returned to Calicut in 1506, when Almeyda was viceroy. Now 1504 is seven years previous[83] to the arrival of the Portuguese at Malacca: so that the Chinese could not have had it from the Portuguese; and if the ships of India had it not, they could not

luogo si ritrovano essendo in mare. Ramusio, vol. i. p. 344.

If *similmente* refers to the preceding clause, it means that they kept their reckoning, not by the log, but by the stars, which is, in that case, a knowledge of finding their longitude as well as their latitude by astronomy.

[82] Moderator navis pyxidem, magnetemque, nec non paginam marinam, compluribus lineis distinctam, qua ventorum rationem insinuant, secum, *more nostro* attulerat. Grynæus in Barthema, lib. vi. c. 27. Ramusio, vol. i. p. 168. More nostro (I think) refers to the sea card; but if to the whole, it does not quite prove whether Barthema had marked the difference between 32 and 24 points.

[83] The Portuguese reached Malacca in 1511. Dalrymple, p. 3. Collections.

have received it through that medium of communication. There is something very strong, likewise, against their receiving it from the Arabs, whom they might have met at Calicut in the fifteenth century; because, if the Arabs then used it, it was in the form they derived it from Europe, and divided into thirty-two points; whereas the Chinese compass is divided into twenty-four, which seems almost conclusive that theirs was an original instrument, and not derived from Europe.

WEALTH OF ARABIA.

VI. After the recital of these circumstances, it is still to be considered, that in the whole of what has been said, it is intended to speak only in general terms: it is not meant to assert, that no ships went to India from Egypt before the reign of Ptolemy Philomêtor, or that no Greeks, in a later age, passed beyond Ceylon to Bengal, or the Golden Chersonese; but that the ordinary course of Oriental commerce was conducted in the way that has been stated, there is every reason to believe, and every evidence that is extant to prove. The value of this commerce, in the hands of the Arabians, is equally evident: their wealth was proverbial, and the particulars of it are detailed by Agathárchides. But there is still one point in which the Arabians are essentially distinguished from all the surrounding nations, which, through their means, partook in the commerce of the east; which is, that however ostentatious their neighbours might be, the riches of the Arabians were all applied to their private luxury and indulgence. In Persia, and Chaldêa, those vast public works and edifices arose, which astonished the

travellers of the ancient world; and in Egypt, the ruins of the Thebaid are an equal cause of amazement at the present hour. In a secondary rank, Tyre, Jerusalem, Baalbeck, Edessa[84], and Palmyra, surprize us with their magnificence; while in Arabia, history speaks only of one public work, which was the Tank[85] at Mariaba; and when the head of that once failed, there never was sufficient industry or public spirit in the country to restore it.

No adequate cause is assignable for this national distinction, but that spirit of independence which broke the body of the people into parts too minute for a combination of interests, and too diffuse for co-operation. This spirit was never counteracted but for a short time, by enthusiasm; and no sooner was that exhausted by evaporation, than they returned again to the state in which they are described by the ancients. They are still a nation of merchants[86] and marauders, incapable of subjection, not less from their temper and habits than from the nature of their country; rarely formidable in a body, from their mutual jealousy and distrust; indifferent soldiers, but dangerous partizans.

No other reason is discoverable, why a nation that at one time possessed almost exclusively the commerce of the East, never arrived at a character of dignity and respect; and no

[84] See Bayer and Ammianus Marcellinus. The latter particularizes an Indian trade at Edessa.

[85] This Tank is placed at Mariaba; but Pliny informs us, that Mariaba signifies a capital; still we have in Schultens, Maraba, the same as Saba; so that the Tank will mark Saba. See Schultens. Vita Saladini. Index Geog. voce Jemana. The Tank failed, according to some authors, in the time of Alexander; others say, after Christ. Univ. Hist. fol. ed. vii. p. 276.

[86] Strabo and Diodorus are in concert with Pliny, who says, lib. vi. p. 340. Pars æqua in commerciis et latrociniis degit: a fact equally true in all ages.

other cause can I trace, why Idumêa became so easy a conquest to the Hebrews, Tyrians, Babylonians, and Romans. It is the influence over their government, and the possession of their harbours on the Red Sea by the Romans, which is now to be investigated; and if the command of the commerce obtained by this power continued with little interruption till the time of Justinian, and was not annihilated till the irruption of the Mahomedans, it is a duration of this commerce in one channel, longer than has fallen to the lot of any other people in whose hands it has been placed.

LEUKE KOME.

Our inquiry commences with Leukè Komè, or the White Village[87]; and the character of White is attributed to several towns or villages on this coast. Ptolemy has an Argè Komè below Yambo; Haûr is another place, about three hundred miles from the head of the gulph; and a third, Haûr or Havarra is discoverable in the Itinerary, but forty-five miles from the same point. All these terms imply whiteness; but d'Anville assumes the second for the Leukè Komè of the Periplûs. In this he is justly supposed by M. Gossellin to be mistaken; because this second Haûr, at more than three hundred and fifty miles from Petra, could not afford a ready communication with that capital, neither could it be within the limits of Petrêa, but must then have belonged to Hejaz; which, that it did

[87] Almost every place inhabited by Arabians, is rather a village than a town or city.

not, we shall have sufficient proof in the expedition of Elius Gallus.

M. Gossellin fixes upon Moilah; to which he is, perhaps, more particularly directed, by finding a name of notoriety in a situation that is probable: but on this coast, as he has very properly observed himself, there is no certainty to be obtained; the ancients have left us few marks of distinction, because they avoided the coast, which was itself dangerous, and more dangerous still from the disposition of its inhabitants; while the few notices which they have left, are obliterated by the retreat of the sea, and the increasing advance of the shore. This arises from a cause which operates on the whole eastern side of the gulph; and in the lower part of it there are the remains of places twenty miles inland, which were formerly marts or harbours.

This must be accepted as a reason why so little satisfaction can be given in regard to individual positions. The general character of the coast, and the division of the provinces, will be distinct; but identical locality is by no means to be expected. This will be apparent in the immediate object of our inquiry, for the White Village itself is obscured by difficulties not easy to be surmounted.

	Lat.
The Haûr of d'Anville[88] is in - - -	25° 2′ 0″
The Moilah of d'Anville, in - - -	27° 30′ 0″
The Moilah of Gossellin, in his Map of Ptolemy	27° 50′ 0″
Arga Komè of Ptolemy, by the Latin text -	22° 40′ 0″
Arga Komè of Ptolemy, by the Greek text -	22° 30′ 0″

[88] The Haûr of d'Anville is ascertained by Al Edrissi to be lower than the island Naman, p. 109; a proof that it cannot be the Hauarra of the Itinerary.

But that there is still another Haúara, Avara, or Havárra [89], we are certain from the Itinerary; and Stephanus [90] informs us, that it was founded by A'retas son of O'bodas, and called Aúara (which signifies *white* in Arabick and Syriack), from some vision of a man in *white*. Pliny adds, that Arra [91] is in the country of the Thimanêi, the adjoining tribe to the Nabatêans, and that here is the centre of commerce. Upon these authorities I had wished to have placed this Havarra on the coast, and to have assumed it for the site of the White Village; more especially as the Itinerary of the Peutingerian Tables points to the entrance of the Elanitick Gulph, and has one route of sixty-one miles from Aila to Havarra, and another [92] of

[89] But I am apprehensive that I read 20 twice instead of once; if so, it is only 45 miles from Haila to Hauarra, and 38 from Hauarra to Petra. The latter distance must, in that case, assuredly be erroneous; and the former too, unless the sea of Acaba be as short as it is represented in the ancient maps, instead of running up to the north so far as it does in the maps of d'Anville, Gossellin, and De la Rochette. Still, whatever be the errors, it is curious to see both these routes detailed at the extremity of the empire, in the reign of Theodôsius; and the shorter the distances are, the more incompatible they are with the Haûr of d'Anville. (See d'Anville's Egypt, p. 129. with his opinion of the Itineraries.) There is a similar diminution of distance from Phara, or Ras Mahomet, to Haila, which the Itinerary makes only 16 miles; and both deficiencies, if they are such, must be imputed to the supposed shortness of the sea of Acaba, *i. e.* the Elanitick Gulph. See Abilfeda, Geog. Min. Hudson, and Astley, i. 132. where a gulph is proved, but not its extent. Aylah, lat. 29°, Abilfeda, long. 55° from the Pillars of Hercules.

[90] See Stephanus Byz. in voce.

[91] Arra oppidum in quo omnis negotiatio convenit. Plin. vi. c. 28. The Thimanêi are the Bythimanees, or Batmizomanees, of Agatharchides, and upon the coast.

[92] I am not certain that I read the distances right; but they appear thus:

	Miles.	
From Clysma to Medeia - -	40	
to Phara - -	80	
	—	120
to Haila - -	50	
	—	50
to Ad Dianam -	16	
to Posidium -	21	
to Havarra - -	24	
	—	61
to Zadagatta -	20	
to Petra - -	18	
	——	38
		269

If by Clysma we are to understand the head of the gulph, or Suez, the opening of the compasses gives precisely 200 Roman miles from Suez to Ras Mahomed, by d'Anville's

thirty-eight, from Havarra through Zadagasta[93] to Petra. But in opposition to this we have the express testimony of Ptolemy [94], that Avarra is inland, and more northerly than Aila. This reduces me to the necessity of concluding, that this Haûr, or Havarra, cannot be the White Village of the Periplûs; so that neither the Haûr of d'Anville, the Argè Komè of Ptolemy, or this Havarra of the Itinerary, will answer our purpose. But there are some circumstances in Agathárchides, which will lead us to a situation where such a port seems to be pointed out, in preference to any other on the coast.

VII. THAMUDENI AND CANRAITES.

This author, at the entrance of the Elanitick Gulph, has three islands: one, sacred to Isis; and the two others called Sookabúa[95] and Sálydô. These islands, after having been lost for twenty centuries, have been restored to geography by M.

map; 180 m. Eng^{sh} by De la Rochette's; 225 by Capt. Cook's chart. When we find therefore only 120 miles in the Itinerary, we must suppose that a distance is omitted between Arsinoè and Clysma, for both are noticed; but there is no number between the two, and Clysma is placed on the eastern side of the gulph, not on the western, as in d'Anville. But if the numbers we have, express the sense of the author, then we must add a third at least; and, by the same proportion, a third from Phara or Ras Mahomed to Haila, making that nearly 67 B. miles; a distance that agrees neither with d'Anville or De la Rochette, for both make it near 110. I have always supposed this distance much too large; and if Irwin's Chart might be depended on, my judgment must be right. Irwin is the only traveller I have met with who has entered the Elanitick Gulph; but though he speaks of the head, he does not quite say that he saw it.

[93] The Zaanatha of Ptolemy.

[94] See Tab. Asiæ, iv. and lib. v. c. 15.

Elana - -	26° 15′ 0″
Avara - -	29° 40′ 0″

Still there is a confusion; for the Greek text says,

Elana - -	29° 15′
Avara - -	29° 20′

But, after all, Avara is north of Elana.

[95] The names are in Niebuhr, but the position is erroneous. One island is still called Jobua by De la Rochette.

Irwin. He is the only voyager, as far as I can discover, who has ever entered this bay; and if his chart may be depended upon, he went up it five-and-twenty miles: in consequence of this he saw these islands, and has named them Tirán, Sanafir, and Barkan. I have never seen them in any chart, previous to his, arranged in the same order; but they bear such testimony to the fidelity of Agathárchides, that he deserves credit when he adds, that "they[96] cover several harbours on the Arabian "shore" [as the Zaffateen Islands protect the port of Muos Hormus]; and one of these harbours, I conclude, must be the Leukè Komè of the Periplûs; for he adds, "to these islands "succeeds the rocky coast of the Thamudêni, where, for more "than a thousand stadii, there is no harbour, no road where "a vessel can anchor, no bay to afford protection, no scrap of "a projecting point, to which the mariner can fly for refuge "in a moment of distress."

However the colouring of this picture may be heightened, the general description is true, as may be seen by a reference to M. Irwin's Journal, from the 22d of June to the 9th of July; where we have every day islets, breakers, shoals, sands, and sunken rocks, with the mention of only one cove where the shore could be approached. The refuge his Arabian boat found, was generally under islets; but a navigator, who did

[96] Τὴν δ' ἐρημένην χώραν νῆσοι τρεῖς ἐκδέχονται, Λιμένας ποιοῦσαι πλέους· . . . . . μετὰ δὲ τὰς νήσους τὰς ἐκκειμένας ἐστὶν ἰδεῖν ἀιγιαλὸν λιθώδη καὶ μακρόν, ἡ δὲ χώρα Θαμυδηνῶν Ἀράβων· ὁ δὲ πρὸς ταύτην παραπλεῖς ἐπὶ σταδίους τῶν χιλίων πλέους πάντων χαλεπώτατος· ἐ γὰρ ἔστιν . . . ἐ λιμὴν εὔορμος, ἐ σάλος ἐπ' ἀγκύρας, ἐ κόλπος ἐπισκηπὴς, ἐ χηλῆς ἐντύπωμα, ἀναγκάια καταφυγὴ, τὸν ναυτιλλόμενον δεχόμενον. Agatharch. apud Hudson, p. 59.

Χηλῆς ἐντύπωμα is a dubious expression; for though χηλὴ is the foot of a wall, or rather loose stones thrown into the sea to break the waves and protect the masonry of a pier, ἐντύπωμα does not occur in the Lexicons: it may be the *form*, the *indenture* at the commencement of a projection. Unless the author aimed at a metaphor, by taking χηλὴ in its sense of a hoof, and so intended it to mean the *impression of a hoof*; but in this sense the metaphor is not just.

not dare approach the shore, might well paint it in the same colours as Agathárchides has done. Irwin carries Moilah fifty miles more to the north than it appears in other charts[97], and within the Elanitick Gulph: if this be true, my conclusion is perfectly in correspondence with that of M. Gossellin; and if, by taking different methods, we both arrive at the same conclusion, it must be a strong confirmation that the point we have both fixed on is right; for a safe anchorage at Moilah, covered by the islands, and the unapproachable nature of the coast below, fix Moilah to a certainty for the Leukè Komè of the ancients.

VIII. BURNT ISLAND, MOOSA, COAST OF YEMEN.

From Leukè Komè to the mouth of the Straits, a course of more than a thousand miles, we have only two places mentioned—the Burnt Island, and Moosa: a proof, as it should seem, that this track was little frequented; and yet the author, by speaking in the first person, seems to have performed the voyage himself. The dangers he describes at large, much in the same manner as we have already reported them from Agathárchides; and the tribes, he says, which inhabit this tract, are numerous; some speaking a language perfectly distinct, and others a different dialect of the same. Those on the coast live in huts or cabins, like the Icthuóphagi; and those who are inland, are a treacherous[98] race, living in hordes or villages, and

[97] P. 143. oct. ed. vol. I.

[98] πονηροῖς ἀνθρώποις διφώνοις. Supposed by Bochart to be Caulanites.—Caulan, a province and mountain between Mecca and Sana. Phaleg. p. 143.

speak two different tongues. If a vessel is driven to this shore, she is plundered; or if shipwrecked, the crew is reduced to slavery. The general name of these tribes is Canraites; and they are treated as enemies, and seized for slaves, by the other regular governments of Arabia. But it is not only the disposition of the natives which makes the navigation dangerous; for the coast itself is without harbours or roads, full of rocks, shoals, and breakers, and dangers of every sort; for which reason, in going down to the south, WE stand off from shore, and keep our course down the middle of the gulph, very desirous [99] of reaching [the more civilized part of] Arabia, which commences about the parallel of Burnt Island, and continues down the whole coast to Moosa. In this tract the inhabitants are under a regular government, leading a pastoral life, and raising vast herds of oxen, camels, and other stock. Moosa is an established mart of great trade, in a bay near the termination of the gulph, at the distance of twelve thousand stadia, or twelve hundred [100] miles from Berenikè; and the whole [of this part] of Arabia abounds in merchants and mariners, both masters of vessels and common sailors, and is commercial in the highest degree. The commodities of the country are rich and numerous; but besides these, there is a great traffic [in

[99] The word is παροξύνομεν. The sentence stands thus: διὸ καὶ ἐισπλεόντων, μέσον πλεῖν κατέχομεν, καὶ εἰς τὴν Ἀραβικὴν χώραν μᾶλλον ΠΑΡΟΞΥΝΟΜΕΝ, ἄχρι τῆς κατακεκαυμένης Νήσου. I had very much doubted of the construction of this passage, when I cited it in the voyage of Nearchus; but I am now persuaded, that by considering Ἀραβικὴν χώραν as the civilized part of Arabia, that is, Yemen or Sabêa, the whole difficulty is removed; and the usage of Ἀράβων in the same sense twelve lines lower, justifies the interpretation; for, τὸ μὲν ὅλον Ἀράβων ναυκληρικῶν ἀνδρώπων καὶ ναυτικῶν πλεονάζον, does not refer ὅλον to the *whole* of Arabia, but to the *whole* of Sabêa, as it is evident by the context.

[100] This is very accurate, reckoning the passage across the gulph, first to Leukè Komè, and then down the gulph to Moosa.

India articles] from Barugáza, or Baroache. Inland from Moosá, at three days distance, lies Savè or Sauè, which is the seat of Cholébus, the king of the district called Maphartis; and nine days farther inland is Aphar or Saphar, the residence of Charibáel, paramount both of the Sabêans and Homerites. This is the sovereign to whom the Roman emperors address their embassies, and whose friendship they conciliate by presents [101] of various sorts, and considerable value.

We have here a general division of Arabia corresponding to the modern distinction of Hejaz and Yemen, as nearly as can be expected after an interval of eighteen centuries. The northern part, occupied by Bedoweens, robbers, and marauders, living under tents in hordes almost without towns, villages, or settled habitation of any sort; while the southern part is in a civilized state, highly cultivated, polished, and commercial, and under a regular form of government, such as Niebuhr found at Sana within these thirty years.

The limit of Hejaz, or Arabia Deserta, is fixed by d'Anville in lat. 17° 12′ 0″ [102], which gives it an extent of coast of near seven hundred and fifty miles, while there remain but little more than three hundred within the straits assignable to Yemen, or Arabia Felix. The northern part of the first division is that which answers more particularly to the dangerous coast described by the ancient authors, and explored by Irwin, terminating at Hassan Isle, in lat. 25°; to which succeeds Yambo, the port of Yathrib or Medina, and Gidda or Judda, the port of Mecca,

[101] Hudson renders this passage as importing presents made by Charibáel to the Roman emperors; but in a following passage the presents from the Romans are specifically mentioned, without any notice of a return.

[102] 19° 0′ 0″ Niebuhr; 18° 0′ 0″ De la Rochette.

the Maco-rabba or Great Makka of Ptolemy. This appellation proves that it was a place of consequence in that early age; and history shews that there is hardly a place which deserves the name of city, except Mecca and Medina, in all that space which geographers allot to Arabia Deserta, across the vast peninsula, from the Red Sea to the Persian Gulph and the Euphrátes. The numerous tribes which inhabit this desert are the Saraceni of the ancients, so called from Saharra [103] or Sarra, a desert, and corresponding exactly with the modern term of Bedoweens. In what sense this country is a desert, was unknown to the ancients, and is almost equally unknown to us; but that it is not arid, so as to preclude the produce of the earth, is evident from the swarms which these tribes furnished in the early period of the Mahomedan conquests, and from the consideration that every Arab is a horseman. Little as will suffice to support an Arab and his horse, both must be supported; if little corn is sowed or consumed, still those who live on the product of their herd must find pasture for their oxen, sheep, camels, and horses; and though many expatriate for this purpose in the season, the majority still remains at home, both winter and summer. Neither can their predatory life supply all their wants; for a whole nation must have a national support. Robbers as they are, they do not rob every one; the caravans still distribute all the merchandize which comes annually to the ports of Yambo and Jidda, through this very country; and in the commerce which the ancients describe, there was a regular intercourse between Sabêa and Petra, from the South, and between the gulph of Persia and Petra, from

[103] Bedijah-Campania, Reiske in Abilfedam, p. 5. Arrabissæ Baduwinæ; solebant nempe nutrices ex al Bedijah (*i. e.* Campania) Meccam ire.

the East. This trade [104] has fluctuated in different ages, from external causes: it is at this moment, perhaps, at a lower ebb than ever, from the commercial superiority of the Europeans in the Eastern Ocean, and from a diminution in the spirit of pilgrimage. But Mecca and Medina are still to be considered as marts [105] rather than sanctuaries; and the commodities brought by the English from India, and by the Turks from Suez, still centre at Jidda [106], as an emporium of considerable importance.

It is the Turkish trade from Suez which the Romans occupied by being masters of Berenikè, Muos Hormus, Petra, and Leukè Komè. It is the English trade from India, which the Greeks and Romans first found in the hands of the Sabêans, and afterwards assumed to themselves, as soon as they had fleets on the Red Sea that neither feared the Nabatêan pirates at the head of the gulph, or the Sabêan merchants at the straits; and from the time they learned the nature of the monsoon from Hippalus, they made a voyage to India more advantageous, than the purchase of a cargo at Moosa or Okêlis.

[104] All goods that go by land with the pilgrims pay no duty, but 10 per cent. is levied on such as come by sea. Hackluyt, ii. 203. The articles are coral, *tin*, corn, and silk.

During the pilgrimage, there is a fair for five days at the Mountain of Pardons, or Mina, without toll or custom. Hackluyt, ii. 210. The customs at Gidda, 150,000 ducats, in 1566, were divided between the Grand Signior and the Sherif.

[105] Was not the Oasis of Jupiter Ammon the centre of communication between the settlers on the coast of the Mediterranean and the interior of Africa? The settlers were Greeks at Cyrênè, Carthaginians and Egyptians, or the conquerors of Egyptians, in Egypt; but the temple itself seems to be more known from the intervention of Cyrênè than any other country.

[106] At the time Bruce was there, nine ships from India were in the harbour, one of which was worth 200,000*l.*; and one Arab offered to purchase the nine cargoes. All these, he adds, are dispersed over the wildest part of Arabia by men with whom no traveller would trust his life. Bruce, vol. i. 278.

IX. EXPEDITION OF ELIUS GALLUS.

The voyage from Suez or Arsínoè was first planned by Neco; it was afterwards meditated by Alexander, and it was executed by the Ptolemies previous to the establishment of Muos Hormus and Berenikè. It was not unknown to the Romans when they reduced Egypt, though then in disuse; but Elius Gallus set out on his expedition from this port, and Strabo imputes his failure to this circumstance as a leading cause.

Strabo laments that this expedition added little to the geographical knowledge of Arabia; and we have reason to complain that Strabo, who lived in habits of intimacy with Gallus, has recorded so little of the information which might have been obtained from that commander. The consequence is, that d'Anville, who follows Pliny, carries the Roman arms to Maríaba, the Mareb of the Arabians; and that M. Gossellin, by his interpretation of Strabo, supposes Maríaba, or Marsy'aba, to be the Maco-raba[107] of Ptolemy, the Mecca of Mahomed. The distance between these two places is little short of nine degrees; so that the difference between the two estimates is 675 Roman miles.

If there were any data to determine this dispute, no labour should have deterred me from investigating it to the utmost; but as Pliny says, that the places which occurred in the expedition of Gallus are not found in authors previous to his time, the same may be said of subsequent writers; for there is not one of

[107] Mecca is always written Macca by Reiske, in his version of Abilfeda; and Macca signifies an habitation. Hackluyt, ii. 207.

them, ancient or modern, who will do more than afford matter for conjecture. This is the reason that compels me to give a sketch only of an expedition so intimately connected with the commerce of the ancients in Arabia.

The commission of Gallus from Augustus was to explore Ethiopia, the country of the Trôglodytes, and Arabia. The first part was executed by Petronius, his lieutenant, and terminated by the submission of Candakè, queen of Meroè. But Arabia, Gallus reserved for himself; and the country of the Trôglodytes he crossed when he landed at Muos Hormus, on his return. This expedition commenced at Cleopátris [108], in the neighbourhood of the modern Suez, where we find him at the head of an army consisting of ten thousand Romans, five hundred Jews, and a thousand Nabatêans from Petra, with a fleet of eighty [109] vessels of war, and an hundred and thirty transports. Syllêus [110], the minister of O'bodas king of Petra, was to conduct this force; but his interest was concerned in defeating the expedition, which he effected, and afterwards paid the forfeit for his treachery with his life. The first error into which he led Gallus, was the preparation of a fleet, which consumed [111] much time, and was of no service; for the army might have proceeded from Cleopátris to Petra, and thence to

[108] Cleopátris is considered as Arsínoè; but perhaps Arsínoè, Cleopátris, and Suez, have all followed the retreat of the sea at the head of the gulph.

[109] Biremes, triremes and phaseli.

[110] See supra.

[111] We have the account of preparing a Turkish fleet in the same manner, anno 1537; by which we learn, that the country affording no materials for ship-building, the several articles were brought across the desert from Cairo on camels. In this manner a fleet of 76 vessels was constructed, which, from the time it weighed from Suez, was ten days before it reached Tor, and left it on the eleventh. This accounts for the fifteen days employed by Gallus in performing a passage of little more than 240 miles. See Ramusio, tom. i. p. 274. Viaggio per un Comito Venitiano.

the head of the Elanitick Gulph, through a friendly country, and in the ordinary track of the caravans[112]. But fifteen days were required to extricate the fleet from the sea of Suez, and to reach the road of Leukè Komè; and here, when they arrived, many vessels had been lost, and the troops were so afflicted with a disorder in the mouth, and swelling in the legs, that the remainder of the year was lost, and the expedition delayed till the following spring.

Upon leaving Leukè Komè, Gallus advanced, first, through a desert[113] into the country of A'retas, who was related to O'bodas, and seems to have been the sovereign of the Thamudites; but Syllêus had the same influence here as in Petrêa; and though the country was not destitute, or the prince un-

[112] We have the route of the pilgrims in Mel. Thevenot, Pococke, and Shawe, from Cairo to Mecca; and reckoning from Ageroud, which is near Suez, the account in Thevenot stands thus, tom. i. p. 151.

	Hours.
From Ageroud to Navatir - -	6½
Rastagara - -	10
Kalaat el Nakel	15
Abiar Alaina (Aila?) - -	14
Sath al Acaba *	15
Kalaat al Acaba	16
Dahr el Harmar	6½
Sharaffe Beni-gateie - -	14
Magure Schouaib (Jethro) -	14
Moilah - -	15
	126 126

	Hours.	
Brought forward	126	126
The rate of a caravan is from 3 to 2½ miles an hour - - -	3	2½
	378	252
		63
		315

This route measures, by the compasses, in a right line on De la Rochette's map, nearly 280 miles, which, with the allowance for road-distance of ⅛, amounts to 320 miles; and this at 15 miles a day, a moderate march for a Roman army, requires 21 days: so that they proceeded faster by sea than they would have done by land; the time lost, therefore, was in the preparation of the fleet.

[113] This is the same desert which Mahomed passed in his march from Medina to Hagjr and Aila, where, Abilfeda says, magnus illi per viam tolerabant molestias ab æstu et siti, p. 52. Ed. Reiske, 1754.

* See Hackluyt, ii. 205. Acaba is close to the sea.

friendly, thirty days were employed before the army reached the country of the Nomades or Bedoweens, called Ararênè [114], and subject to Sabus. This tract has a resemblance to the territory of Medina and Mecca; and the space of fifty days employed in passing it, till they reached the city of the A'grani [115], Négrani, or Anágrani, which was taken by assault, is some confirmation of the conjecture. The king had fled into the desert; but the country was not hostile, nor altogether incapable of supplying the necessaries requisite for the army [116].

From hence, after a march of six days, they arrived on the bank of a river, where the natives were collected in a body, and opposed their passage: a battle was the consequence, in which, with the loss of only two Romans, ten thousand Arabians were slain. Strabo describes them equally deficient in spirit, as they were ignorant of the art of war; and yet these very tribes were in a future age, under the influence of Mahomedan

[114] Ararênè is probably Sara-rene, as Aphar is Saphar; and Sara is Saharra, *the desert*.

It is strongly marked in Hackluyt, ii. 206. Ich-Bir is mentioned, implying water.

It has dates, flesh, great store and cheap, and prostitutes.

Herat had been a place of importance, but destroyed by Sultan Gauri of Egypt.

[115] A'grani on the first mention is written Négrani in the MSS.; and on the second, τὰ Νάγραανα: and Casaubon wishes to read Αγραίοι. See Strabo, pp. 781, 782. All these readings prove the uncertainty of the ground we stand on; and any of them would justify d'Anville in assuming Najeran (a place fully described by Al Edrissi, and well known to Niebuhr), if the other circumstances of the expedition will accord. Najeran is a fortress dependant on Mecca: it lies 12 days south of that capital, and east of the mountains which bound the Tehama. See Al Edrissi, pp. 48. 50, 51. This is perfectly consistent, if Ararênè is the country of Medina and Mecca; and Najeran must be, by comparing circumstances in Al Edrissi, on the borders of Yemen, nearly on a parallel with Sadum Rah. Consult. p. 48.

[116] Ali passed through Najeran, and brought a tribute from it, when he was returning from Yemen, whither he had been sent to preach the Koran by Mahomet; and if Nágrana be Najeran (as to all appearance it is), it directly contradicts Gossellin's hypothesis, that Elius Gallus terminated his expedition at Mecca. Abilfeda Reiske, p. 53. Abilfeda mentions the conversion of the kings of the Homerites, the people of Arabia Felix; and adds, that Ali's preaching converted the whole tribe of Hamdan in one day.

enthusiasm, to subdue the world, from the Pillars of Hercules to the Indus.

The loss of this battle produced the surrender of Asca, a city in the neighbourhood; and, without learning what time was spent here, or what distance intervened, the next place we find them at is Athrulla. Athrulla was taken without difficulty, and garrisoned, and a supply of provisions was obtained, which enabled them to proceed to Marsúaba. This city is described as the capital of the Rhaminites, and the seat of Ilasar[117], the sovereign of the country. Here terminated the expedition; for, after lying before the place six days, Gallus was compelled, by want of water, to raise the siege, and retreat to Anágrana, where the battle had been fought[118], and which he did not reach till after a distressful march of nine days.

From this time, the preservation of his army was the more immediate object of the commander, than the hope of conquest: he had spent six months in reaching Marsúaba; he was now convinced of the perfidy of Syllêus; he imputed the whole failure to the direction of the march by the advice of that minister; and if the same delay should occur on the retreat, he saw that the destruction of the army was inevitable.

To prevent this, it is evident that the route was changed; and we are led to infer, that it was directed from the interior to the coast. In this case, the army must have crossed the

[117] By consulting Ptolemy, the country of Elisárus, or the Elisári, is far too much to the south to allow of the supposition that Gallus went no farther than Mecca.

[118] The copies of Strabo are so incorrect in these names, that though there is evidently an intention of the editor to make A'grana first mentioned, and Anágrana or τὰ Νάγρανα in this place, correspond, either the author or the text are at variance; for the battle was not fought at A'grana, but six days from it, and apparently at Asca, as that city surrendered immediately after the battle.

mountains and descended into the Tehama; and yet in a march of sixty days, we have nothing to guide our inquiries but the mention of four places, without dates, and with one distance only specified: these are, *The Seven Wells*, eleven days from Anágrana; Chaalla, Málotha, and Nera. Nera[119], we are informed, was in the territory of O'bodas, that is, in Petrêa, and in all probability at some distance to the southward of Leukè Komè.

At Nera the army embarked, and was eleven days in crossing the gulph to Muos Hormus. The route from this port to Koptus on the Nile has been already described; and from Koptus, Gallus proceeded to Alexandria with the shattered remains of his forces. Of these, seven only had perished by the sword; but a very great proportion was rendered unserviceable by disease[120], famine, and a variety of distresses which they had experienced in the course of the campaign.

Thus ended an expedition, planned without policy and conducted without capacity. If it had succeeded, the Romans

[119] Nera, in the margin of Strabo, is written Hygra, and Negra in Casaubon's translation; and in such a fluctuation of the MSS. or printed copies, we have nothing to determine our doubts; but we may conclude, that the place, whatever is its name, must be considerably below Leukè Komè, as the passage from that port to Muos Hormus was only three days. This, however, was for a single ship, and Gallus had a fleet; but we must suppose he continued his course up the coast to the northward, and came by Ras Mahomed to the Egyptian shore. Much difficulty stands in the way of calculation; and, after all, it is not quite clear whether Strabo's eleven days are to be reckoned from the time Gallus reached Nera, or from the day he left it: I conclude the latter to be intended. A Negra is mentioned by Cedrenus, p. 364. 500 years later: this is evidently Najeran, where, according to the Roman Martyrology, St. Arethas was put to death by Dunaan a Jew, king of the Homerites. He is called Lord of the Fiery Pits, in the Koran. Michaelis writes the name Dhou'l-naas. One should not have expected to find a Christian martyr, of the name or family of the Arethas's of the desert.

[120] Dio says, they did not merely retreat, but were driven out.

could not have established themselves in the country; and by its failure, it retarded their full intercourse with India for almost a century. But if it were possible to give the reader satisfaction on the extent of it, no apology would be requisite for the digression. This, from the scantiness of materials, cannot be done; but as my conjectures differ both from d'Anville and M. Gossellin, I shall barely state the grounds on which they are founded, and leave the determination to the judgment of the reader.

The first step towards fixing the termination of the expedition, would be to distinguish Marsy'aba from all the cities with which it is confounded.

The Marsy'aba of Strabo is in the country of the Rhamanitæ, and under the government of Ilasárus. It is not the Mareb of Sabêa, where the great Tank [121] is, for that he calls Merîaba of the Sabêans; and this sufficiently declares against d'Anville's system, which carries Gallus into Sabêa, and on which Gossellin justly observes, that if Gallus had besieged Mareb, he would not have been obliged to raise the siege for want of water, the reason assigned by Strabo.

Ptolemy has likewise a Máraba (written Báraba in the text) which he places in the country of the Minêans, and calls it a metropolis; and a Maríama, two degrees to the south-east; but he has no Maríaba either in Sabêa or the country of the Homerites. His Elisári, the Ilasar of Strabo, are still farther south than the Minêans, and upon the coast.

[121] Mareb is still the capital of a large province in Yemen called Dsjof, between Najeran and Hadramaut, where the ancient traditions concerning the Tank, the queen of Sheba, &c. are still current. See Nieb. t. ii. p. 119. Arabie.

Pliny has two Mariabas: one marked by the Tank, called Baramalchum [122], the Royal Sea or Lake; and another, in the country of the Calingii; he adds, that Mariaba is a general name of a capital. It is apparently then the Mariaba [123] of the Calingii which he informs us, contrary to the assertion of Strabo, that Gallus took, and finished his invasion at Carípeta. But it is still more extraordinary, that the other cities he mentions as taken and destroyed by Gallus, do not, in any one instance, correspond with those of Strabo, except that his Negra is possibly Nagrana [124].

Dio [125] terminates the irruption at Athlula, evidently the Athrulla of Strabo: he mentions the army being afflicted with a disease in the head and legs; and adds, that Gallus did not merely retreat, but was driven out by the natives.

The whole of this goes to prove, that Gallus did not reach Mareb Baramalcum; and, in short, the fact is impossible; for *that* Mareb is above eleven [126] hundred miles from Moilah, and the retreat of Gallus, in sixty days, would require a march of almost twenty miles a day, which, for such a continuance, is not to be performed.

But if the Mareb of d'Anville be too distant, the Mecca of Gossellin is too near; for the route of the caravan, from Moilah to Mecca, makes it only 731 miles, at 3 miles an hour.

[122] Bahr-u-melk, Bahr-u-malk, Bahr-u-malkim; the Lake of the King, or the Kings; the Royal Lake.

[123] Supradictam Mariabam. The Mariaba of the Calingii is the last mentioned, and Hardouin supposes that to be meant.

[124] See note supra.

[125] Lib. liii. p. 350. Ed. Steph.

[126] It is 1085 in a right line, which, with the addition of a seventh, becomes 1240, and increases the difficulty.

Brought over	731		
	547	—	at 2½ miles an hour.
	546	—	d'Anville's Map.
	560	—	De la Rochette's Map.
Add for road distance	80		
	640	—	probable mean distance, from 620 to 640.

If, therefore, Gallus was advancing for six months, he must have marched little more than an hundred miles a month. And let us suppose, with Gossellin, all the fraud of Syllêus, and all the deviations of the march he pleases, this advance is far less than a Roman army can be supposed to make. The country Gallus was desirous of reaching, was the country of gold [127], frankincense, myrrh, and spices, certainly either Hadramaut or Yemen; and when he was at Marsúaba, he was told he was but two days distance from the province he wished to enter. He might be deceived in that, and most probably he was; but the deception could hardly amount to the difference between two days and thirty, and Mecca is little short of thirty days from Hadramaut.

Gossellin supposes Athrulla to be Yathreb or Medina, and Marsúaba to be Macoraba or Mecca; but it is not easy to discover the resemblance of these names, or the other five he gives from Pliny. Strabo is surely a better guide, who was in habits of intimacy with Gallus, and who received the names most probably from his report. Pliny says, that Marsúaba was taken, and that the expedition terminated at Carípeta: Strabo

[127] Strabo, 780.

asserts, that Marsúaba was not taken, and does not notice Carípeta at all. It is not safe to build on similarity of names; but Nagrana, which Gossellin supposes to be Al Nokra [128], is certainly more nearly related to Najeran in sound. Najeran is assuredly as ancient as Mahomed's time: it is a conspicuous province still, according to Niebuhr [129]; and Al Edrissi [130] places it on the road from Mecca to Yemen. This appears to be the very route by which Gallus was advancing; and Najeran, by the Arabian accounts, was capable of affording the supplies of which the army stood in need. I am myself therefore persuaded, that Gallus entered the country of the Minêans, and that the city he assaulted, whether Maríaba, Marsúaba, or Carípeta, was the capital of that province; for Maríaba implies a capital in general; and if Ilasar is the king of this tribe, whether Calingii, Rhamanítæ, or Elesári, I would comprehend all three under the title of Minêans. At least, to my conception it is clear, that Ptolemy, Pliny, and Strabo, all point to something farther south than Mecca.

Whether this opinion will meet with the approbation of others, is dubious; such as the obscurity and contradiction of my authorities will allow, I give it. If Najeran be a fixed point, and concluded, we have ground to stand on; if it can be disputed, I am ready to embrace any assumption that may

[128] Al Nokra is the place where the road from Basra to Medina joins that from Kufa to the same city. A Basra ad Medinam stationes fere viginti, & hæc via coincidet cum extremitate Kufæ prope Maaden al Nokra. Al Edrissi, p. 121. Even as d'Anville has placed Al Nokra, I conceive it lies far too much to the east to be in the track of Gallus; and, from the expression of Al Edrissi, I conclude it lies farther east than d'Anville has placed it. But even if d'Anville is right, Al Nokra is upwards of 200 miles out of the road that Gallus appears to have taken.

[129] Arabie, ii. 114.

[130] Pages 48, 49.

be supported upon better proofs. What the Rhamanítæ of Strabo, or Calingii of Pliny, may be, seems impossible to determine. Gossellin concludes, that the Rhamanítæ of Strabo are the Manítæ of Ptolemy: it is the strength of his argument; and in Mercator's Map, the Manítæ are placed on the north of Mecca. But perhaps Mercator is misled, for we have no latitude of the Manítæ; and the text says, below the Manítæ [131] is the interior Myrrh country, and then the Minêans, a great nation. I have not yet met with any account of myrrh in Hejaz, and therefore, if the Rhamanítæ and Manítæ are the same, I conclude that they are in Yemen. But the whole of this is conjectural; and, if names avail, I might with equal propriety contend, that Rhaman is Haman, or Hamdan, the tribe converted by Ali, the position of which answers; or assert, that Cari-Peta is Carni-Peta, correspondent to the Carna [132] or Carana of Strabo, which he says was the capital of the Minêans.

Is it not reasonable to suppose that the army moved in the track of the caravans [133]? and as the line here assumed is direct

[131] Ὑπὸ τῆς Μανίτας ἡ ἐντὸς σμυρνοφόρος, εἶτα Μινᾶιοι μέγα ἔθνος.

[132] I have a leaning towards the connection of these two names; but if the two places be the same, the difficulty is not removed; for the same city cannot be taken, and not taken; and the expedition cannot terminate at two different places. The following circumstances, however, may be curious, if not convincing:

The four great nations in Arabia Felix, or Yemen, were the Minêans, the Sabêans, the Katabanenses (who are in the Maphartis of the Periplûs), and the people of Hadramaut. As the power of the Sabêans declined, the tribe of Hamyar (the Homerites) prevailed, whose capital was Aphar, Saphar, or Dafar; but the capital of the Minêans was Karna, or Karana. Μινναῖοι . . . . . πόλις αὐτῶν ἡ μεγίστη Κάρνα, ἢ Καρανά. Strabo, 768. I ask curiously, but without affixing any importance to it, may not the Karípeta of Pliny be Karni-Petra, the fortress of Karna? If this could be supposed, Maríaba, or *the capital*, is identified with Karni-Petra; for both are the principal city of the Minêans.

[133] Strabo has pointed this out, under the supposition that Gallus might have marched by the caravan-road through Petréa. Λευκὴν

between Hejaz and Hadramaut, and cuts the province of the Minêans, who were the regular carriers between both, does not this supposition solve more of the difficulties than any other? It is but a supposition at last; still, where our ignorance of the country renders every effort dubious, a rational hypothesis is all that can be expected.

Najeran [134] itself is in Hejaz, for it is one of the fortresses of Mecca, according to Al Edrissi; and the boundary of this province and Yemen, is fixed at the following station. If, therefore, Gallus was nine days in returning hither after his repulse, we may suppose that he would not march less than fifteen miles a day on such an emergency: this requires that he should have advanced upwards of an hundred miles into Yemen. And if we date from Najeran the sixty days employed in his retreat to Nera, an estimate between twelve and fifteen miles a day would enable him to reach that port in the time assigned. This seems a great exertion for sixty [135] days continuance; but famine impended, and doubtless the Arabs hovered in the rear; add to this, that when the army arrived in Egypt it was completely ruined, as Strabo informs us, by famine, hardship, sickness, and the difficulties of the march.

Nera, as it is the termination of the expedition, I should have been glad to fix, but no representative offers; it must be within the limits of Petrêa, and it should be placed as far below Leukè Komè as the province will admit: it may perhaps be

κώμην εἰς ἣν . . οἱ καμηλέμποροι τοσούτῳ πλήθει ἀνδρῶν καὶ καμήλων ὁδεύουσιν ἀσφαλῶς καὶ εὐπόρως εἰς πέτραν ἐκ πέτρας, ὥστε μὴ διαφέρειν μηδὲν στρατοπέδου. The camels and men in the caravans find supplies from fortress to fortress, in the same manner as an army.

[134] El Edrissi, p. 49.

[135] But it agrees with a similar route from Thomna to Gaza, mentioned by Pliny, which required 65 days. Lib. xii. 32. Hardouin.

discovered by some future Niebuhr; or an enlarged knowledge of the language, and the country, may shew that we are all pilots at sea, without instruments, charts, or compass.

We are now to return to the coast, on which, as has been already noticed, the Periplûs mentions only the Canraites, Burnt Island, Moosa, and Okêlis. The Canraites are the wild tribes on the broken shore of the Hejaz, terminating about Hassan Isle, in lat. 25°. And the passage from Leukè Komè to the Burnt Island was conducted with a view of avoiding the coast throughout. How this could be effected during a run of from ten to twelve degrees, or more, is not easily accounted for; but one of these distances it must be, according as we assume Gebel Tar, or Gebel Zekir, for Katakekáumenè, or the Burnt Island; and as both preserve at present the signs of volcanoes in decay, one of them it must be, as may suit best with other circumstances mentioned. The extreme distance is from Moila, in lat. 27° 56′[136] to Gebel Zekir[137], in 13° 50′; the smallest, from Hassan Isle, in 25°[138], to Gebel Tar, in 15° 10′. If Mokha is assumed for the representative of Moosa, and Moosa be the only object of the ancients, Gebel Zekir must be preferred; or if we suppose that the ancients wished to approach

[136] Making 14° 6′.

The first distance is 834 miles English, the latter 625; both presenting a course far too long for any ancient vessel to perform without coming to an anchor. They must therefore have stopped at some of the islands below the Hejaz for water and refreshments.

[137] Notwithstanding the disagreement of M. d'Anville and M. Gossellin, no one can search this question thoroughly without reference to the dissertation of the former on the gulph of Arabia. I have collected materials from both; from P. Sicard, Irwin, Bruce, and De la Rochette's beautiful chart. If I prefer the latitudes of the last to all others, it is because they are founded more especially on observations made by English navigators, and the officers on board the sloops, packets, and trading vessels in that sea, are, for the most part, scientific men, and better qualified to determine nautical questions than any navigators who have preceded them.

[138] Making 9° 50′.

the coast, as soon as they found the natives more civilized, we should rather be directed to Gebel Tar [139]: for in that latitude, and even to the north of it, we are to fix the Sabêans generally, in the same manner as Niebuhr extends the dominion or influence of the modern Sana. Sana in fact, under the government of its Imam [140], as it comprehends nearly the same territory as the ancient Sabêa, so does it partake of the manners and habits attributed to that nation, where commercial intercourse had softened the Arabian character, and introduced that security of life and property, without which commerce itself cannot exist.

Mooza, according to the Periplûs, was the regular mart [141] of the country: it was not a harbour, but a road with a sandy bottom, which afforded good hold for the anchors [142], and where the ships lay in great security: it was inhabited wholly by Arabians; and was frequented on account of the Indian trade with Barugaza, as much as for its native produce.

The intercourse with the Sabêans had from the first been established, either here or at some mart in its vicinity; but the Sabêans were now no longer the prevailing tribe; the Homerites, who came from Mareb, were become the superior power,

[139] Jibbel Tier is the point from which all ships going to Jidda take their departure after sailing from Mocha. Bruce, i. p. 341. This, though the course is the direct contrary to that of the Periplûs, still marks it as a point of departure and destination.

[140] This is evident, from Barteman in Ramusio, from the French Voyages in 1721, by La Rocque, and from Niebuhr. The government of the Imam is much more gentle than any Moorish government in Africa or Arabia; the people, too, are of gentle manners, the men, from early age, being accustomed to trade. Bruce, i. 307.

[141] ἐμπόριον νόμιμον, the port established by the native government.

[142] Bruce mentions the same circumstance of the road of Mokha. The cables, he says, do not rub, because the bottom is sand, while it is coral in almost every other part.

and Charibáel the sovereign of both nations. He had fixed the seat of his government at Aphar, supposed by Gossellin to be the same as Dafar or Safar; and Dafar is noticed by Niebuhr as a place near Mount Sumara, now in ruins. The distance, however, does not answer; for Aphar is placed by the Periplûs thirteen days inland from Savè, and Savè three days from Moosa. But if Savè is the same as Taas, or Mount Sabber, the distance from Sabber to Dafar is not much more than from Moosa to Sabber; and thirteen days from Sabber inland would carry us much nearer to Sana, the modern capital of the Imam, and the metropolis of Yemen.

It is possible, that in a country subject to perpetual revolutions, provinces may have obtained different names from the tribes that occupied different situations: this seems apparent in the district of Cátaba, which is now inland sixty miles from the coast, notwithstanding that Strabo places the Catabanians immediately at the straits. It may be, therefore, presumption to say, that Savè is Sabber[143], or Aphar, Dafar; notwithstanding that the territory of Maphartis[144] at Sávè, or the capital of the Homerites thirteen days inland, may afford us general information sufficiently correct. Cholêbus, the sovereign of Maphartis, whose residence is at Savè, is styled a tyrant by the Periplûs, that is, a prince whose legitimate title was not acknowledged; but Charibáel is the genuine[145] sovereign of the Homerites and Sabêans. The power of Cholêbus extended over the south-west angle of Yemen, both within and without

[143] Niebuhr has a conjecture also relating to Sabba and Zebid, tom. ii. p. 55.

[144] Periplûs, p. 13.

[145] ἐνδεσμος βασιλευς. Perip. p. 13.

the straits, occupying the same tract as the Catabanians of Strabo in a former age. And Cholêbus had a joint power[146] with the subjects of Charibáel, the citizens of Moosa, over the settlement at Rhapta, on the coast of Africa.

The mart of Yemen, at the present day, is at Mokha, where coffee is the grand article of exportation, on which the Imam of Sana[147] receives a duty of twenty-five per cent. equivalent to the custom exacted by the Romans at Leukè Komè seventeen hundred years ago. Twenty miles inland from Mocha, Niebuhr discovered a Moosa still existing, which he with great probability supposes to be the ancient mart, now carried inland to this distance by the accretion of the coast. And if the accretion is allowed, certainly no situation can be assumed more correspondent to the ancient authorities.

At Moosa, the IMPORTS specified are these:

Πορφύρα[148] *διάφορος καὶ χυδωία,*	Purple Cloth, fine and ordinary.
Ἱματισμὸς Ἀραβικὸς χειριδωτὸς *ὁ τε ἁπλῆς καὶ κοινὸς καὶ σκοτελάτος,*	Cloaths made up in the Arabian fashion, with sleeves, plain and common, and (*scutulatus*) mixed or dappled.

[146] So I interpret a passage (p. 10. of the Periplûs) *νέμεται δὲ αὐτὴν [τὴν χώραν] κατὰ τι δίκαιον ἀρχαῖον, ὑποπίπτουσαν τῇ βασιλείᾳ τῆς πρώτης γνωμένης Ἀραβίας, ὁ Μοσαρείτης τύραννος. Παρὰ δὲ τῷ βασιλέως ὑπόφορον αὐτὴν ἔχουσιν οἱ ἀπο Μόσα.* I understand by this, that *Τύραννος* means Cholêbus, and *βασιλέως* Charibáel; and that the merchants of Moosa, who were subjects to Charibáel, received the customs at Rhapta, while Cholêbus had the civil administration. According to ancient right, Rhapta belonged to the *principal government* of the Sabêans or Homerites. Cholêbus had wrested it from them, but still the merchants of Moosa received the customs by an original grant from Charibáel.

[147] Niebuhr, who cites Pliny, lib. xii. c. 35. for another instance: Regi Gebanitorum quartas myrrhæ partes pendunt.

[148] The modern articles of import and export may be seen in Niebuhr, tom. ii. p. 52.

Κρόκος, - - - -	Saffron.
Κύπερος, - - - -	Cyperus. Aromatic Rush.
Ὀθόνιον, - - - -	Muslins.
Ἀβόλλαι, - - - -	Cloaks.
Λώδικες ἐ πολλαὶ, ἁπλοῖ τε καὶ ἐντόπιοι,	Quilts, a small assortment; some plain, and others adapted to the fashion of the country.
Ζῶναι σκιωταὶ, - - -	Sashes, embroidered, or of different shades.
Μύρον. - - - -	Perfumes.
Χρῆμα ἱκανὸν, - - -	Specie for the market, or in considerable quantity.
Οἶνος τε καὶ σῖτος ἐ πολὺς, -	Wine and Corn, not much. The country produces some corn, and a good deal of wine.

EXPORTS:

Σμύρνα ἐκλεκτὴ, - - -	Myrrh, of the best quality.
Στακτὴ ἀβειρμιναία[149], - -	Stactè, or Gum.
Λύγδος, - - - -	White Stones. Alabaster.

Added to these were a variety of the articles enumerated at Adooli[150], which are brought over from Africa and sold here. But there were likewise several others imported as presents

[149] A doubtful reading; but probably containing Μιναία, *i. e.* from the country of the Minæi, possibly the Gum Abeir from Minêa.

[150] Coffee and frankincense are the chief of the native exports at present, with myrrh, ivory, and Abyssinian gold from Massua, answering to the ancient Adooli.

both to Charibáel [151] and Cholêbus; such as horses, mules, gold plate, and silver embossed, robes of great value, and brass ware of various kinds. Of these it may be presumed that Charibáel had the largest share; for to him embassies [152] were frequently addressed, and he was considered as the friend of the Roman emperors.

The importance of this commerce, as it appears in the Periplûs, is manifestly far inferior to the representation of it in Agathárchides; and the trade of the Sabêans declining, after the fleets from Egypt found their way to India direct, was probably not only the cause of their impoverishment, but of their subjugation also by the Homerites. Still it is evident that the manners of the people in this quarter of Arabia were civilized; that the government was consistent, and that the merchant was protected. This character, as we learn from Niebuhr, Yemen still maintains, in preference to the Hejâz, and the whole interior of the peninsula. The same security is marked as strongly by the Periplûs in Hadramaut; and the whole coast on the ocean being commercial, the interests of commerce have subdued the natural ferocity of the inhabitants.

It is a circumstance foreign to the object of the present work, but still curious to remark, that in the age previous to Mahomet, Yemen was in the possession of the Abyssinians, whose power

[151] Τῷ τε βασιλεῖ καὶ τῷ τυράννῳ.

[152] Συνεχέσι πρεσβείαις καὶ δώροις φίλος τῶν αὐτοκρατόρων, *may* be rendered as expressing, that *by frequent embassies and presents he had obtained the title of Friend of the Emperors*, an honour formerly conferred upon sovereigns in alliance with Rome, by a vote of the senate. Masinissa, Eûmenes, and Ariovistus, were styled *Amici* Populi Romani. But I have preferred the rendering in the text, because the presents *from* Rome are specified.

terminated with his birth; and that in the short period[153] which intervened between his assuming the prophetic office and the Caliphat of Abubecre and Omar, all this part of Arabia was, almost without an effort, subjected[154] to their power. In the sixteenth century the Turks were masters of the coast, and some places inland, but were driven out by the founder of the present dynasty, Khassem el Ebir, whose posterity assumed the title of Imam, and fixed their residence at Sana, the present capital of Yemen, which cannot be very distant from the ancient metropolis of Sabêa.

On this coast, the first fleets that sailed from Egypt met the commerce from India. Agathárchides seems to say, that the ships from Persia, Karmania, and the Indus, came no farther than the coast beyond the straits; and that the fleets from Egypt met them there, and exchanged their articles of commerce. Now the fleet from Karmania and the Indus could not reach Arabia without experiencing the effects of the monsoon, as Nearchus had done; and the knowledge of this once obtained, could not be lost. We cannot go farther back, historically, than the journal of Nearchus; but in that we find manifest traces of Arabian navigators on the coast of Mekran, previous to his expedition. And whether the Arabians sailed from Oman or Sabêa, it is still a proof that the monsoon must have been known to them before the time of Alexander;

[153] Niebuhr, tom. ii. p. 10.

[154] Yemen seems to have been converted before Mahomet's death, if we credit the account of Ali's mission and success. But the accession of the strongest and richest provinces of the peninsula, of the more civilized to the more barbarous, is one of the obscurest facts in the early history of the Mahomedan power.

and a high probability that they had reached the coast of Malabar, or that vessels from that coast had reached Arabia, from the earliest ages.

The distance from Moosa to Okêlis is short of forty[155] miles. Okêlis has a bay immediately within the straits; and at this station the fleets which sailed from Egypt in July, rendezvoused[156] till they took their departure in the latter end of August[157], when the monsoon was still favourable to conduct them to Muzíris, on the coast of India. For Okêlis we have Okíla[158] in other ancient authors, and Ghella is the name it bears at present. D'Anville has marked it sufficiently in his Ancient Geography; and in Capt. Cook's[159] chart, which is upon a large scale, the entrance of this bay is two miles[160] wide, and its depth little short of three. Added to this, if it is considered that the projection of the Bab-el-Mandeb point is a complete protection[161] against the contrary monsoon, we find

[155] 300 stadia, Peripl. equal to $37\frac{1}{2}$ miles, or, at 10 stadia to the mile, 30 miles.

[156] See supra.

[157] It will appear presently, that the fleets destined to India sailed earlier than those which went only to the southern coast of Arabia. They are distinct voyages.

[158] Ακίλα, text; Ωκίλα, marg. Strabo. P. 769. he calls the promontory by this name.

[159] It has been already noticed, that the Capt. Cook here mentioned commanded a sloop in the India Company's service, about the year 1774. His scale is very large, and consequently I have been enabled to view this bay more distinctly than in d'Anville's map, or De la Rochette's chart. It is by Captain Cook's chart that I obtained a knowledge of the Bay Avalítes (p. 115.), in which it appears in perfect conformity with the Periplûs. Such is the advantage of a large scale, and such is the correspondence of modern intelligence with ancient authorities, when we can obtain it in detail.

[160] De la Rochette marks this bay, and adds, that it is still navigable by boats; a sufficient proof that it was practicable for an Egyptian fleet seventeen centuries ago.

[161] Between Cape St. Antony and Babel Mandeb the land is low along shore, forming a deep bay, which makes the Cape (Babel Mandeb) appear detached. Oriental Navigator, p. 152.

here all the conveniences[162] that were requisite for a fleet constructed like those of the ancients.

X. STRAITS OF BAB-EL-MANDEB, ANCIENT NAVIGATION OF SESOSTRIS.

The passage of the straits, and entrance into the ocean, had been considered possibly as great an achievement by the natives, on both sides of the Gulph of Arabia, as the voyage of Hercules through the Straits of Gades to the Garden of the Hesperides, by the Greeks. Fabulous accounts consequently attached to both; and the passing of Bab-el-Mandeb was as naturally attributed to Sesostris, as the voyage through the Straits of Gibraltar to Hercules. Diodôrus says, that Sesostris[163] sent a fleet of four hundred ships into the Erythrêan Sea, and subdued the islands, and all the maritime countries as far as India. Heródotus is much more moderate; and mentions only that Sesostris commenced his expedition from the Gulph of Arabia, and subdued the nations bordering on the Erythrêan Sea, till he met with shoals[164], which opposed the farther progress of his fleet.

But as we are now arrived at the straits, I shall introduce a table comprizing the most material authorities of the ancients,

[162] Having passed the strait, it is necessary to anchor: you must shut up the straits, and anchor a little to the northward of Cape Bab-el-Mandeb, where the water is *always smooth*. Oriental Navigator, p. 152.—*N. B.* This is at the entrance of the Bay of Okêlis.

[163] Diod. lib. i. p. 64. ed. Wessel.

[164] Herod. lib. ii. p. 149. ed. Wessel.

compared with each other, and with the different conclusions of the moderns. A final decision on the points disputed, or actual precision in the present attempt, are not to be expected; but a probable adjustment of near twenty names to their respective positions, will afford the reader a general view, which will enable him to form a judgment for himself.

TABLE of Ptolemy's Catalogue for the Eastern Side of the Gulph of Arabia, compared with other Geographers, ancient and modern.

The first Latitude of Ptolemy is according to the Latin Text; the second, according to the Greek.

* Denotes Positions supposed to be ascertained. R. Latitudes from De la Rochette.

PTOLEMY.	AGATHARCHIDES.	DIODORUS.	STRABO.	D'ANVILLE.	GOSSELLIN.	PERIPLUS.
I. Klusma Garrison 28° 50′ 28° 10′		Icthuophagi, lib. 3. c. 40. p. 208. in whose country the sea retreated. Troglodytes.		Clysma 29° 27′ Phihahiróth. Sicard.		* Clysma 29° 40′ R.
II. Arsínoè 29° 10′ 29° 20′		Posidion. Under this name Diodôrus comprehends the sea of Suez.		Arsínoè 29° 46′ Cleopatris. Suez.	Clysma. Suez. Colzum.	* Suez 29° 58′ R.
III.	Phoenícôn.	Phoenícôn.	Phoenícôn.	Elim of Exod. xxv. 27. el Tor. 28° 10′	Elim. Tor. Raithum.	* Tor. 28° 11′ R.
IV.	Néssais not an Island in Agatharchides.	Island of Phocæ, described with the properties of Nêssa.	Island of Phocæ.	El Cab.	Shedowan.	* Shedowan Island 27° 24′ R.
V. Pharan - 28° 30′ 28° 10′	Promontory.	Promontory.	Promontory.	Ras Mahomed.	Ras Mahomed.	* Ras Mahomed. 27° 47′ 5″ R.
VI. Elana - 29° 0′ 28° 15′ City - 26° 15′ 29° 15′	Laianitick Gulph.	Laianitick Gulph.	Elanitick Gulph.	Aila. Elath. Haila. 29° 30′	Aila. Acaba. Ila.	* Elath 29° 15′ 5″ R.
VII.				Acaba. Ezeon. Geber.	Acaba.	* Acaba 29° 10′ R.
VIII. Onnè 28° 40′ 28° 30′						
IX. Modiana 27° 45′ 27° 45′	Batmizóminêis.	Banizomenes.	Hunters.	Magar Schuaib. Jethro the Midianite.	Magar Schouaib.	* Madian or Midian.
X. Hippos, Mount - 27° 20′ Town 26° 40′ 26° 10′					Bull's Horns. Irwin. But S. of Moilah.	Bull's Horns. Irwin, p. 143. vol. i. oct.
XI. Phênícôn 26° 20′ 26° 20′				Calaat el Moilah.	Moilah. Leukè Komè.	* Leukè Komè. White Village. 27° 56′ R.
XII.	Three Islands: 1. Sacred to Isis. 2. Sookabua. 3. Salydo.	Three Islands. One sacred to Isis.	Three Islands.			* Three Islands. Irwin 28° 4′ R. 1. Tiran. 2. Barkan, Jobua. 3. Sanafir.
XIII. Rhaunathi Village 25° 40′ 25° 40′	Dangerous coast, ends at Hassan, lat. 25° R.	Dangerous coast. Echinades.	Dangerous coast. 1000 stades.	Rouniè.	Dangerous coast.	* Dangerous coast. Kanraites.
XIV.				Hawr. White Village, 25° d'Anville.		Hawr. same lat. as Hassan Isl[d] 25° R.
XV. Chersonese Promontory 25° 20′ 25° 20′	Coast with water.	Chersonesus.	Chersonesus.	Ras Edom 24° 5′	Ras Uaned 25° 40′ possibly Ras Mahar 24° 32′ R.	Ras Reghab? lat. 24° 13′ R. under which, Jeraboop harbour of Irwin.
XVI. Iambia Village 24° 0′	Coast with water.	Charmoothas.	Charmoothas.	Yambo 23° 50′	Yambia inland.	* Al Giar 23° 34′

XVII. Copar Village 23° 15′ 23° 15′					Dome. Cupola.	
XVIII. Arga Village 22° 40′ 22° 25′					Rabagh. Gadirkom 22° 50′	
XIX. Zaaram Capital 22° 0′ 22° 0′						Tsafra ? 23° 30′ R.
XX. Kentos Village 21° 30′ 21° 30′					Giddah.	
XXI. Thebæ City - 21° 0′ 21° 0′	Dedebæ.	Debæ.	Debæ, from דהב, Dahab, Gold.	Province of Mekka. Maco-raba of Ptol^{y} 22° 0′	Mekkans.	* Mekka 21° 32′ R. Province of Mekka. M c alat. 21° 40′
XXII. Bœtius River 20° 40′ 20° 20′				Bardilloi.	Sockia.	* River Charles. Ibhar Obhar 21° 39′ R.
XXIII.				Giddah 21° 34′ Port of Mekka.		* Giddah. Port of Macoraba.
XXIV. Badeo Capital 20° 15′ 20° 20′				Ras Bad. Avad 21° 25′	Serrain.	Giddah Head 21° 28′ R.
XXV. Ambe City - 19° 10′ 19° 30′						Gedan ? Ziden ?
XXVI. Kassanites	Alilæi. Kassandrini.	Gasandeis. Alilæi.	Gold Coast.	Ghezan 16° 48′ R.	Beni Halil.	Gedan, or Ziden, 20° 44′ R.
XXVII. Mámala Village 18° 10′ 18° 10′						Ras Hali ? 18° 0′ Limit of Hejaz and Yemen 18° 37′ R.
XXVIII. Adédi Village 17° 10′ 17° 10′						a sanites terminate perhaps at Ras Ghesan.
XXIX. Elisari on the coast. Minæi inland.						Elisari commence from about Ras Ghezan, lat. 16° 30′ to Moosa.
XXX. Puani City - 16° 30′ 16° 10′						
XXXI. Pudni City 16° 30′ 16° 10′						
XXXII. Æli Village 15° 30′ 15° 10′				Ras Hali. lat. 19° 0′	Loheia 15° 30′	Bay below Loheia ? Island Gebel Tar 15° 10′ 15° 40′ R.
XXXIII. Napegus Village 15° 0′ 15° 0′						Hodeida? resembles Adedi in sound, but not in position.
XXXIV. Sacatia City 14° 30′ 14° 30′						Al Sharga ? Island Gebir Zekir 13° 50′ 14° 0′ R.
XXXV. Moosa Mart 14° 0′ 14° 0′	Sabêa.	Sabêa.	Sabêa.	Mokha.	Muza, from Niebuhr 6 leagues inland.	* Muza 13° 0′ Mokha 13° 18′ R.
XXXVI. Sosíppi Port 13° 0′ 13° 0′						
XXXVII. Pseud Okélis 12° 30′ 12° 30′						
XXXVIII. Okélis - 12° 0′ 12° 0′				Ghella.	Ghella.	* Ghella Bay. 12° 48′ R.
XXXIX. Palindromos Prom^{y} 11° 40′ 11° 20′				Bab-el-Mandeb.	Bab-el-Mandeb 12° 39′ 20″ Bruce.	* The Babs. Pilots'sIsl^{d} 12° 44′ R.

If the shoals of Heródotus have any foundation in fact, they are connected with the Bay Avalítes [165], on the African shore, immediately beyond the straits, where mention is made both by Strabo and the Periplûs, that the vessels employed in later ages put their lading into boats in order to trade with the natives; but this is hardly intended by Heródotus, though his description has confined him within narrower limits than those of Diodôrus.

This, however, we obtain at least from the account before us, that in the age of Heródotus it was a prevailing opinion, that the passage had been made in the most remote ages; and if the Egyptians ever were navigators, there can be no objection to admit them into a participation of the commerce with Arabia, or extending that commerce as far as the Arabians did towards the east. Few other historical documents, however, of the fact appear, farther than may be collected from the circumstances here recorded, and these are both few and deficient.

To what extent the passage of the straits, and progressively, the voyage to India, were accomplished, has been already sufficiently shewn; but that it was always considered as a most extraordinary attempt by all those who had not personally made it, we want no other testimony than that of Arrian, the historian of Alexander. He asserts, that no one had gone round the whole coast, from the Arabian into the Persian [166] Gulph, though perhaps some few had passed from one to the other by

[165] Perhaps the Sasus of Cosmas, but dubious; for his Sasus seems to be rather on the coast of Adel, or Barbaria. See Melch. Thevenot, p. 7. Cosmas.

[166] This is in some measure true at this day; for the western coast of the Gulph of Persia has been little visited. Capt. Hamilton's is the best account I have seen.

striking out into the open sea[167]. Now Arrian lived in the reign of Adrian; and Hippalus had laid open the track to India, at least fourscore years before Arrian wrote: so little was known in the northern part of the empire of what was going on in the south.

Okêlis was not a mart of commerce, but a bay with good anchorage, and well supplied with water: it was subject to Cholêbus[168]. The neighbouring headland of Bab-el-Mandeb, which forms the entrance of the straits, is placed in lat. 12° 39′ 20″ by Bruce, and the straits themselves are said to be only sixty stadia, or seven miles and a half wide, or six miles[169], if we reckon ten stadia to the mile. This is very near the truth, if we measure from Bab-el-Mandeb to Perim, which the Periplûs calls the Island of Diodôrus; while the whole breadth, from the Arabian to the African side, is nearly five-and-twenty[170]. Perim, or Mehun, was taken possession of by the British, when the French were in Egypt, and begun to be fortified; but it has no water. It is not the only island in the straits; for there is another called Pilot's Island, close to the Arabian shore; and on the African side eight more, bearing the name of Agesteen.

The wind in this passage is described as violent, from its confinement between the high lands on both sides; and the opening

[167] Lib. viii. p. 358. ed. Gronov. See the note of Gronovius on this passage, p. 356.

[168] Κώμη τῆς αὐτῆς τυραννίδος; of the Usurper's Country.

[169] Sir Home Popham's chart reduces this to two; and I see with concern a considerable difference between his latitudes in the Red Sea and those of De la Rochette. I am no competent judge to determine which of the two is right; but having followed De la Rochette as the best authority known, when I traced this coast, by that I must abide.

[170] Bruce conjectures six leagues. Cook's Chart makes it near 25 miles. Bruce, i. 315.

of the straits gradually towards Fartaque and Gardefan, is strongly [171] marked in the Periplûs.

The first place to which we are directed beyond the straits, is a village called Arabia Felix: its distance is estimated at an hundred and twenty miles from Okêlis; and it was formerly a city of importance before [172] the fleets passed from India to Egypt, or from Egypt to the countries towards the East [173]. Previous to that time, the fleets from Egypt and the East met in this harbour, which was the centre of the commerce, as Alexandria was afterwards for all that passed through Egypt into the Mediterranean. Upon this occasion the language of the Periplûs is very precise, and in perfect harmony with the account of Agathárchides. "It received its name of (Eudai-"môn) rich and flourishing, from the circumstance of the ships "from Egypt and India meeting there, before the merchants "of Egypt *dared* [174] to venture farther towards the marts in the "East." For this purpose this harbour was more particularly convenient, as it afforded better anchorage, and was more commodious for procuring water than Okêlis. The town stands at the entrance of the bay, and the retiring of the land inwards affords protection to the shipping. Reduced as it was in the author's age, by the different channel into which the com-

[171] Ἀνοιγομένης πάλιν τῆς θαλάσσης εἰς ἀνατολὴν καὶ κατὰ ΜΙΚΡΟΝ εἰς πέλαγος ἀποφαινομένης· opening by degrees from the straits to the two capes.

[172] Εἰς τὲς ἔσω τόπες.

[173] In the middle ages, the India trade had reverted into its original course: Ex ipsa solvuntur navigia Sindæ, Indiæ, et Sinarum, et ad ipsam deferuntur vasa Sinica. Al Edrissi, p. 25.

The Arabs distinguish between Cheen and Ma-Cheen: the first is Cochin China; and the other, China. The porcelain mentioned seems to imply, that *Sinarum* used here means the real Chinese, and that they traded so far west in that age. Sindæ and Indiæ express Scindi and Hindostan. The same fact is confirmed by Marco Polo.

[174] μηδὲ ἀπὸ Αἰγύπτε ΤΟΛΜΩΝΤΩΝ εἰς τὲς ἔσω τόπες διάιρειν.

merce had been directed, the village was subject to Charibáel, and had within a few years been taken and destroyed by the Romans.

XI. ADEN.

Every circumstance in this minute description directs us to Aden: the distance, the harbour, and the name[175], all correspond; and the peculiarity of its being under Charibáel, while Okêlis was possessed by Cholêbus, marks the extent of the Homerite dominions, surrounding Maphartis in the angle of the peninsula. The native sheiks, or heads of tribes, at the present day, are perfect representatives of Cholêbus. When Niebuhr was in Arabia, the sheik of Aden was no longer subject to the Imam of Sana, but had asserted his independence, and possessed a small territory in the neighbourhood of the city.

The capture also and destruction of this village by the Romans, a short time previous to the author's age, would be a natural consequence of the progress and extension of the Roman commerce from the Red Sea to India; and, as Claudius collected a tribute from the maritime towns of Arabia, it is natural to suppose that he was the Cesar mentioned in the Periplûs, who ordered this place to be destroyed, for the purpose of suppressing every power that might interfere with the Roman commerce, or divert a share of it into its ancient channel. It is true this must have been an act of oppression upon Charibáel, who was the ally and friend of the Roman emperors; but far greater sacrifices of their justice to their ambition occur in the

[175] Aden signifies deliciæ. Huet.

history of those sovereigns of the world. It was the same system of policy which induced Soliman, emperor of the Turks, to send Soliman Pacha from the Red Sea to suppress the rising power of the Portuguese in India; when, under pretence of delivering the Mahomedan powers from this new and unexpected intrusion of the Christians, he employed the forces which had been collected on the occasion in seizing on the maritime towns of Arabia. It was then that Soliman Pacha obtained possession of Aden by treachery, and hanged the sheik at the yard-arm of his ship [176].

I conjecture that it was Aden which Agathárchides describes without a name, when he places a city on his White Sea without the straits; from whence, he says, the Sabêans sent out colonies or factories into India, and where the fleets from Persis, Karmania, and the Indus, arrived. He specifies large [177] ships employed for this purpose; and though his mention of islands may suggest an idea of Socotra, Curia Muria, and the coast of Oman, it seems far more probable that his intelligence was imperfect, and that these fleets, which he describes, must have been found in the same port which the Periplûs assigns them, as long as the monopoly continued in the hands of the Sabêans.

The testimony of Agathárchides is, in one point, highly important; for it is the first historical evidence to prove the establishment of Arabian colonists, or rather resident factors

[176] Viaggio di un comito Venetiano. Ramusio, tom. i. f. 276. anno 1538.

This Venetian captain was put in requisition at Alexandria, and sent to Suez to serve under Soliman Pacha. He was present at the execution of the sheik, and describes the Indian trade at Aden as then consisting of only three or four spice ships in a year.

[177] Very large ships still came from Guzerat in the 16th century. Sir Henry Middleton detained several, the dimensions of which he notices, the largest of 1200 tons. Purchas.

and merchants, in the ports of India: it is a fact in harmony with all that we collect in later periods, from Pliny, and the Periplûs, and Cosmas; and we may from analogy conclude, that it was equally true in ages antecedent to Agathárchides; that is, as early as we can suppose the Arabians to have reached India. The settlement of their own agents in the country was most convenient and profitable, while the manners and religion of India created no obstacle to the system.

In the middle ages, when the power of the Romans was extinguished, and the Mahomedans were possessed of Egypt, Aden resumed its rank as the centre of the trade between India and the Red Sea. The ships which came from the East were large, like those which Agathárchides describes: they did not pass the straits, but landed their cargoes at this port, where the trankies[178] or germes of the Arabs, which brought the produce of Europe, Syria, and Egypt, received the precious commodities of the East, and conveyed them either to Assab, Kosir, or Jidda; when all that passed into Europe, still came to Alexandria, and enriched the Soldan's dominions by the duties levied, and the profits of the transit. In this situation, Marco Polo found Aden[179] in the thirteenth century; and the account he gives of the wealth, power, and influence of Aden, is almost as magnificent as that which Agathárchides attributed to the Sabêans in the time of the Ptolemies, when the trade was carried on in the same manner.

[178] M. Polo uses the expression *Zerme*. The Arabs of Renaudot mention the same circumstance, that the ships from the East did not enter the Red Sea.

[179] M. Polo, lib. iii. c. 39. the soldan of Aden sent 30,000 horse and 40,000 camels, to assist at the siege of Acre, in the year 1200. Such a soldan as this might be an Imam of Sana, or a representative of the Homerite dynasty.

So far as the identity of Aden and Arabia Felix, there appeared no difficulty when I was arranging this coast in my former edition; but if a doubt could be imagined, it is finally removed by Sir Home Popham's chart, and his plan of this harbour: for it presents us with a peninsula joined to the continent by a very narrow neck of land, and adjoining to a river, which might afford the supply of water specified at this port. If we should now refer to that plan, and place the town of Arabia Felix on the western, instead of the eastern point of the peninsula, where Aden now stands, it would lie at the entrance of the harbour, as it is described in the Periplûs. The narrowness of the neck includes the difficulty of approach from the main, and the distance from the straits answers within the difference of five miles. Much praise is due to every officer who publishes the result of his own experience, not only on account of the service which may accrue to navigation in future, but likewise as it contributes to remove former errors, and to promote the interests of science universally. In the present instance, I have the satisfaction to find that the merchant of the Periplûs, as well as Nearchus, is proved to be more conformable to truth, in proportion to our attainment of a more minute and accurate knowledge of the local. I could have wished for the same advantage in my farther progress to the East; but upon the remainder of this extensive coast, from Aden to the Gulph of Persia, there will be few positions in the following detail which will accord with d'Anville's arrangement, or with that of other commentators who have bestowed their attention upon the Periplûs.

XII. ARRANGEMENT OF THE COAST OF ARABIA ON THE OCEAN.

The circumstance upon which the whole depends, is the adjustment of Suágros. In common with others, I had supposed its representative to be the modern Ras-el-had; and there is so much to induce this opinion, that I abandoned it with reluctance, and shall perhaps find great difficulty in persuading others that it is erroneous.

The Periplûs notices Suágros as pointing to the East, and as the greatest promontory in the world. Omana likewise is mentioned with it, answering to the present Oman; and Moscha, seemingly identified with Maskat, the principal port of that province. Under the influence of these resemblances and probabilities, if I had joined in the common suffrage, and called Suágros Ras-el-had in my former publications, wherever it occurred, it is conviction alone, and the abandonment of system for truth, which compels me to recall the error, and acknowledge[180] that Suágros is not Ras-el-had, but Fartaque.

This is a concession not made for the purpose of particular accommodation, but grounded on a general analysis of all the positions on the coast, on a combination of all the circumstances relative to the division of the provinces; and upon a painful re-consideration of all that was to be undone, and unsettled, after I had fixed my opinions upon the authority of the best writers, who had preceded me on the subject.

[180] I find that De Castro is of the same opinion. Astley, vol. i. 111. Purchas, ii. 1123. And Stuckius in loco.

The reader will expect proofs; and the proofs are, that the islands round the whole extent of the coast on the ocean will now fall naturally into their places, which cannot be effected by any other arrangement. The islands in Ptolemy will become relatively consistent with those of the Periplûs; and the Bay Sachalítes, which Ptolemy has been accused of transposing from the west to the east of Suágros, is reduced to the different application of a name, instead of a difference in point of situation.

Sachalítes is universally allowed to be the Greek form of expressing the Arabick Sahar[181]. Now there are two Sahars on the coast of Arabia: one that is almost centrical between Aden and Fartaque; and another that lies to the east of Fartaque, between that cape and Cape Morebat or Merbat[182]. In the first[183] of these there is little variation of orthography; but the other is written Schœhr, Schahr[184], Shahar, Cheer[185], and Seger.

[181] Sahar becomes Sachar by enforcing the sound of the aspirate, and the change of the final r is analogous in a variety of instances: thus, Degel, formed into Deger, is the river Tigris of the Greeks; and Sinus Sachal-ites is equivalent to Sachar-ites, the bay of Sachar or Sahar.

[182] Cape Merbat, called Morebat and Marabout in our charts, is a headland much noticed by our English navigators: it is one of the principal sources of frankincense; for Al Edrissi says, in montibus Merbat nascuntur arbores thuris quod deinde in omnes Orientis et Occidentis partes defertur. It is four days, or an hundred miles, from Hasec, and consequently in the very heart of the district, which is the Sachalítes of Ptolemy. I observe in some authors a division of the coast into Thurifera Regio, Prior and Ulterior: if this is founded, the Prior would be previous to Fartaque, and the Ulterior to the eastward of it; the first would be the Sachalítes of the Periplûs, and the latter the Sachalítes of Ptolemy; and respectively, the Hadramaut and Seger of Al Edrissi. But I rather think the distinction modern, at least I have not yet met with it in any ancient author. See Al Edrissi, p. 27.

[183] The first Sahar is meant by Niebuhr, as he places it in the province of Jafa, which lies between Aden and Hadramaut; and he writes it Schähr, Arabie. Tom. ii. p. 125. French edition.—It is likewise the Escier of Marco Polo, 40 miles from Aden. Lib. iii. c. 40.

[184] In the French Voyage, by La Rocque 1716, which, with the French pronunciation, is our English Schœhr, pronounced Share; and Otter writes it Sir, *i. e.* Seer. Tom. ii. 71.

[185] Renaudot's Arab calls it Sihar or Shihr.

They are both frequented as places of trade to this day. And if we suppose that the first Sahar is the Sachalítes of the Periplûs, and the second Shahar, the Sachalítes of Ptolemy, the Suágros of Ptolemy will answer to Fartaque as well as the Suágros of the Periplûs, and the two authors will be in harmony with each other.

Further proofs of this reconciliation will be given in our progress along the coast, and some difficulties that attend it will be acknowledged; but if it should be admissible or probable upon the whole, much indulgence is due in regard to inferior objections; as, upon the first view of the coast before us, no two accounts can seem more irreconcileable to each other than those of Ptolemy and the Periplûs.

XIII. KANE.

The first port to which we are to proceed from Aden, is Kanè [186]; the distance is stated at two thousand stadia or more, upon a length of coast inhabited by Bedouins and Icthuóphagi; and if we estimate the number of stadia at two hundred miles, the termination falls very nearly at the Cava Canim of d'Anville, or at Maculla Bay, which lies a very few miles to the

which is the English Sheer. The produce, he says, is frankincense. The ships of Siraf go to Jidda, but never farther in the Red Sea. Their cargoes are conveyed to Egypt in ships of Colsum, the Red Sea, p. 93.

[186] I have not been without suspicion, that Kanè might be Keschin, which I have found written Cassin; that is, Kâsn in Oriental pronunciation. But I have the name only to guide me to this suspicion; for Keschin would not agree with the distance from Aden, or to C. Fartaque, or with the Bay Sachalítès of the Periplûs. Neither have I yet found, in any map or narrative, two islands off Keschin, to correspond with Orneôn and Troolla. Islands, rivers, mountains, and promontories, are our surest guides.

eastward. Our charts take notice of both, and at Cava Canim [187], which is inserted principally upon the authority of d'Anville, there appear some islets, which may be Orneôn [188] and Troolla, described as desert isles by the Periplûs; and which, if they exist, identify Cava Canim for Kanè, in preference to Maculla. In point of distance, either is sufficiently exact to answer the purpose; for Maculla is sixty [189] leagues from Aden, and Cava Canim eight or ten miles short of that bay.

Kanè is represented as a port of considerable trade, subject to Eleásus, king of the Incense country, who resided at Sabbatha, the principal city of the district, which lies at some distance inland. At Kanè is collected all the incense that is produced in the country, and which is conveyed hither both by land and sea, either by means of caravans, or in the vessels of the country, which are floats supported upon inflated skins [190]. Sabbatha is supposed by most of the commentators to be Schibam or Scebam, which Al Edrissi places in Hadramaut, at four stations, or an hundred miles, from Mareb: a certain proof that we have adopted the right Sahar for the Periplûs; because Mareb must be more than *three* hundred miles distant from the Eastern Sahar, or Seger; and Seger is not considered by Al Edrissi as a part [191] of Hadramaut, but as a separate district.

[187] In Sanson I find the name of Cava Canim first mentioned, where he has a bay and islands; but as Sanson was well acquainted with the Periplûs, whether he placed them there out of respect to that authority, or had any other, I cannot discover.

[188] Orneôn is Bird Island, so called perhaps from the universal habit of sea fowls resorting to desert islets; and Troolla has no meaning in Greek. It is said to lie 120 stadia from Kanè, of which I can find no trace.

[189] Sixty leagues, or 180 geographical miles, are equal to 208 miles English. See Oriental Navigator, p. 162.

[190] These floats are noticed by Agathárchides, and are by some supposed to give name to a tract inhabited by Ascítæ, from Ἀσκὸς, Uter.

[191] Terræ Hadramaut contermina est ab oriente terra Seger. P. 53.

It is remarkable that the author of the Periplûs, who notices Sabêa and Oman by name, makes no mention of Hadramaut, (the third general division of the coast), but distinguishes it only by the title of the Incense country. To maintain that these are the three general divisions of Arabia on the Indian Ocean, is consonant to all the evidence we have, ancient and modern; neither do independent districts or sheiks, as those of Keschin, Seger, or Mahra, interfere with this distribution. And that we are equally correct in assigning the Western Sahar to Hadramaut, is capable of proof; for Al Edrissi says, from Aden to Hadramaut, which lies to the east of Aden, are five[192] stations. If therefore we observe, that at Kanè we are already two hundred miles east of Aden, we are advanced far enough to shew that we are in Hadramaut[193], and that the Western Sahar is properly placed in that province.

At Kanè likewise, as there was an established intercourse with the countries eastward[194]; that is, with Barugáza, Scindi, Oman, and Persis[195]; so was there a considerable importation from Egypt, consisting of the following articles:

Πυρὸς ὀλίγος, - - -	A small quantity of Wheat.
Οἶνος, - - - -	Wine.
Ἱματισμὸς[196] Ἀραβικὸς, - -	Cloths for the Arabian market.

[192] Ab Aden autem ad Hadramaut quæ jacet ab orientali latere ipsius Aden, stationes quinque. P. 26.

[193] Ptolemy makes Kanè the emporium of Hadramaut.

[194] Τῶν πέραν ἐμπορίων, I had supposed to mean the marts only on the coast of Africa *beyond* the straits; but, from the usage here, the expression is evidently extended to all ports beyond the straits, not only in Africa, but in India and the Gulph of Persia.

[195] Τῆς παρακειμένης Περσίδος, is the coast of Persia opposite to Oman.

[196] Not cloth of Arabia, but for the Arabian market: so we say in the mercantile language of our own country, Cassimeer cloth; that is, cloth for the market of Cassimeer. And the word ἱματισμὸς seems to imply, that the cloth was made up into garments.

Ἱματισμὸς κοινὸς, - - -	Common sort.
ἁπλᾶς, - - -	Plain.
νόθος περισσότερος, -	Mixed or adulterated, in great quantities.
Χαλκὸς, - - - -	Brass.
Κασσίτερος, - - -	Tin.
Κοράλιον, - - - -	Coral.
Στύραξ, - - - -	Storax, a resin.

And many other articles, the same as are usually imported at Moosa. Besides these also, there are brought

Ἀργυρώματα τετορευμένα, -	Plate wrought, and
Χρήματα τῷ βασιλεῖ, - -	Specie for the king.
Ἵπποι, - - - -	Horses.
Ἀνδριάντες, - - -	Carved Images.
Ἱματισμὸς διαφόρος[197] ἁπλᾶς -	Plain Cloth, of a superior quality.

The exports are the native produce of the country:

Λίβανος, - - - -	Frankincense.
Ἀλόη, - - - -	Aloes.

And various commodities, the same as are found in the other markets of the coast. The best season for the voyage is in Thoth, or September.

After leaving Kanè, the land trends inward, and there is a very deep bay called Sachalites, that is, the Bay of Sachal or Sachar, and of a very great extent. The promontory (which

[197] Apparently in opposition to Κοινὸς.

is at the termination) of this is called Suágros, which fronts towards the east, and is the largest promontory in the world. Here there is a garrison for the protection of the place, and the harbour is the repository of all the Incense that is collected in the country.

XIV. BAY SACHALITES, HADRAMAUT.

This bay of Sachal has already been asserted to be Sahar; and this Sahar, or "Shahar[198], appears to be a fine town at the "present day, situated by the sea-side; and it may be seen "five or six leagues off. The point of Shahar is twelve or "thirteen leagues from Maculla Bay;" while the coast, with various curves, but no indenture so great as the Periplûs requires, stretches E.N.E to Cape Fartaque[199]; and that this Fartaque is Suágros, is the point now to be proved.

And first[200], that it points to the east is true; but it is not true that it is the largest promontory in the world; for Ras-el-had, on the same coast, is larger. But it is more conspicuous, and was of more importance, probably, in the author's view, as forming the great entrance to the Gulph of Arabia, in conjunction with Cape Arômata on the coast of Africa; and as such, it is still the point of more immediate consequence in

[198] Oriental Navigator, p. 162.

[199] Written Fartak, Fartash, Fortuash.

[200] It is the first or Western Shahar that Marco Polo describes forty miles from Aden, under the name of Escier, with circumstances very similar to those of the Periplûs: the produce of incense, the monopoly of the sovereign, palm trees, Icthuóphagi, &c. See Marco Polo in fine.

the opinion of modern navigators, as well as in that of the ancients.

A second proof is, that Socotra is said to lie between this cape and Arômata; which, in one respect, is true, and cannot be applied to Ras-el-had. And a third is, that the islands of Curia Muria, and Mazeira, are to the east of this cape, as they really lie; while, if Suágros were fixed at Ras-el-had, the islands must lie on the west of the Cape, directly transposed from their real position to an erroneous one. But of this we shall treat in its place. We must now return to Sahar, which is considered in the Periplûs as the heart of the Incense country, and the Incense country is Hadramaut.

Hadramaut is the Hatzar-maveth of Genesis, which signifies[201] in Hebrew, the Court of Death; and in Arabick, the Region of Death; both names perfectly appropriate, according to the testimony of the Periplûs, which informs us, "that the "incense is collected by the king's slaves, or by malefactors "condemned to this service as a punishment. The country is "unhealthy[202] in the extreme; pestilential even to those who "sail along the coast, and mortal to the wretched sufferers em- "ployed in collecting the frankincense; who perish likewise "as often by want [and neglect] as by the pernicious influence "of the climate. The country inland is mountainous, and "difficult of access; the air foggy, and loaded with vapours "caused [as it is supposed] by the noxious exhalations from

[201] Bochart Phaleg. p. 101.

[202] Michaelis (Question xxix. proposed to the Danish Travellers) is inclined to doubt this pernicious influence of the climate, and the danger of collecting the incense. He rather considers the whole as a fabrication, intended to throw a mystery over the trade, and to prevent foreigners from penetrating into the country.

« the trees that bear the incense; the tree itself is small and « low, from the bark of which the incense[203] exudes, as gum « does from several of *our*[204] trees in Egypt."

The conveyance of this drug by land, Pliny informs us, was through Thomna, the capital of the Gebanites, to Gaza on the coast of Palestine, by a caravan that was sixty-two days in its progress; and that the length of this journey, with the duties, frauds, and impositions on it, brought every camel's load to upwards of two-and-twenty pounds, English; and a pound of the best sort at Rome, to more than ten shillings. The course of this conveyance is not easy to comprehend[205]; for if the commodity passed by a caravan, the Minêans were centrical, and the usual carriers from Gerrha on the Gulph of Persia, as well as from Hadramaut and Sabêa, to Petra in Idumêa. But we must not understand this as excluding the conveyance of the incense to Alexandria by the Red Sea; for that city was the great repository of this, as well as all the other produce of India and Arabia. Pliny[206] mentions this particularly, and

[203] It has been observed already from Niebuhr, that the best incense is now procured from India, by far more clear, white, and pure, than the Arabian; and it is a circumstance well worth inquiry, whether the collection of this gum is attended with the same fatal effects in that country as are here described; and whether the consequences are deducible from the drug itself, or from the nature of the country. Those who are desirous of learning more than is here remarked on this subject, may consult Pliny, lib. 12. c. 14. and Salmasius, 486, et seq.

[204] Ὡς τινα καὶ τῶν παρ' ἡμῖν ἐν Αἰγύπτῳ δένδρων. This is an expression so clearly marking the country of the writer, that it cannot be mistaken; and the whole description is not that of a man who merely wrote upon the subject, but of one who had visited the country, and painted what he saw.

[205] Bochart places Thomna between Sabbatha and Mariaba, and supposes the Katabéni and Gebanitæ to be the same people; which they are; for Pliny makes Ocila (Okêlis) a port of the Gebanites, xii. 13.: but if so, it is the territory of Maphartis he must place them in; and they would not move by caravans, but by sea. Strabo makes Tamna the capital of the Katabéni, p. 768.; and his Katabéni are not between Sabbatha and Mariaba, but in the territory of Maphartis.

[206] Lib. xii. 14.

notices the precautions taken by the merchants of that city to prevent fraud and adulteration.

The Periplûs does not advert to any particular spot in this bay, or specify any town of Sachal; but, after relating the circumstances as they are here stated, proceeds directly to Suágros. Suágros, or the Wild Boar, would naturally induce a persuasion that it was a nautical appellation, like the Ram Head[207], Dun Nose, &c.; but it is far more probable that, like Pheníkôn in the Red Sea, it is derived from the palm-trees observed there, of a particular species, called Suágros; they are of a superior sort[208], as Pliny informs us, with large fruit, hard, and rough in appearance, and with a high relish of the flavour of *wild boar*. What this flavour is, we may leave to the naturalists to determine; but the allusion to Suágros is manifest; and that the Cape takes its name from its produce, is a natural conclusion. That this promontory is actually Cape Fartaque, cannot be doubted, if we now advert to the particulars connected with it; for we are told, that the island of Dioskórida lies between this point and Cape Arômata, or Gardefan, on the coast of Africa; that it is at a considerable distance in the open sea, but nearer to Suágros than to the Cape opposite; and that it is a large island, far exceeding all the others that appertain to the coast of Arabia.

Now although this account is not strictly accurate, for Socotra is not actually between the two capes, but forms a terminating point to Cape Gardefan, like our Scilly Islands to the

[207] So Κριὸς μετώπων in Crete.

[208] De Palmis. In meridiano orbe præcipuam obtinent nobilitatem Syagri . . . . . ipsum pomum grande, durum, horidum, et a cæteris generibus distans sapore ferino, quem ferme in *apris* novimus. Plin. xiii. 4.

It is not the coco nut palm; for, among his forty-nine species, Pliny afterwards mentions the Cycas (Κυκὰς) pomo rotundo, majore quam mali amplitudine.

Land's End, and is consequently nearer Africa than Arabia; still, speaking generally, the description in other respects is sufficiently correct. The most transient reference to the map will at least prove, that none of these circumstances can be applied to Ras-el-had; for that cape lies almost seven hundred miles farther to the north-east, and can hardly be said, in any sense, to be *opposite* to Gardefan, unless by drawing a line of such extreme obliquity, as would never occur to the mind of a mariner under the idea of an *opposite* promontory; but Cape Fartaque is constantly contrasted with Gardefan in modern geography, as Suágros is placed opposite to Arômata in the Periplûs.

XV. DIOSCÓRIDA, OR SOCOTRA.

Dioscórida, Dioscórides, Dioscûrias, or Dióscora, may have a Greek origin, but it has so near a resemblance to Socotra [209] or Zocotora, that it is much more likely to be a nautical corruption of an Arabick term, than the application of a Greek one.

This island is near an hundred miles long, and thirty at its greatest breadth: it was inhabited only on the northern [210] side

[209] See a full account of Socotra, and its produce of aloes and gum dragon, in Purchas, vol. i. p. 417, et seq.; and a drawing of it in Astley (*i. e.* Green), and Melchiz. Thevenot. Green's account of it in Astley's Voyages, i. p. 109. is full and satisfactory.

[210] In the French Voyage published by La Roque, 1716, Paris—Tamarin, the capital of the island, was still on the north side. He mentions also, that it was subject to the sheik of Fartaque, the same probably as the sheik of Kesin; though he calls Fartaque the capital, and Seger, or Schœhr, the port (p. 151). The French obtained here aloes, at eight piastres the quintal of 95 pounds; besides frankincense, civet, and gum dragon. Tamarin was a well-built town. There are two voyages contained in this work; and in the second, a party went up from Mokha to Sana, who speak well of the Arabs, and the Imam's go-

in our author's age, and the population there was very scanty, consisting of a mixture of Arabians, Indians, and Greeks, who had resorted hither for the purposes of commerce; while the remainder of the country was marshy and deserted. Marco Polo informs us, that in his time the inhabitants were Christians; and Al Edrissi confirms this, with the addition, that the Greeks were introduced there by Alexander[211], at the request of Aristotle[212], in hopes of obtaining aloes, the principal produce of the island, and of the best quality that is known. Now it is remarkable, that aloes are not mentioned by the author of the Periplûs; but he notices particularly the drug called Indian[213] cinnabar, which exudes from a certain species of trees, and tortoise-shell, of the largest size and best sort; adding, that there is likewise the mountain or land-tortoise, which has the lower shell of a ruddy yellow, and too hard to be cut;

vernment. It is a curious work, well digested and put together; and the more worthy of consideration, as I know of few other Europeans who have been at Sana, except Barthema, Niebuhr, and some of our English merchants, in their first attempts to open a trade at Mokha.

[211] When he was returning, says Al Edrissi, from the Persian Gulph to the Gulph of Arabia: which, unfortunately, he never did.

Cosmas Indicopleustes says, they were Greeks from Egypt; he was not at the island, but conversed with some of the natives in Ethiopia: they were Christians, and their priests were from Persia, that is, they were Nestorians. Bayer Hist. Bact. p. 111. Montfaucon's Edit. of Cosmas, p. 179.

Marco Polo says, in Mosul on the Tigris, hanno un patriarcha che chiamano Jacolit (catholicos) il qual ordina Arci Vescovi, Vescovi, & Abbati, mandandoli per tutti le partie dell India & Al Cairo, et in Baldach (Bagdat), & per tutte le bande dove habitano Christiani . . . . . non pero secondo che commanda la chiesa perche falla in molte cose, et sono Nestorini, Jacopiti et Armeni. Lib. i. c. 6.

[212] Dapper mentions aloes, ambergris, and gum dragon, &c. from a tree called Ber; and notices the Arabs from Caxem (Keschin), and Fartaque as ruling. They are not now Christians, he says; but have christian names, as the remains of that religion.

[213] The native cinnabar is a mineral; and what is meant by Indian cinnabar that distils from trees, is not easy to determine. But I find in Chambers's Dictionary, that there has been a strange confusion between cinnabar and dragon's blood; the dragon's blood therefore is meant, which is one of the natural productions of the island. See Stuckius in loco.

and that from the solid part of this were formed cases[214], boxes, and writing-tablets [of great value]. He informs us also, that there were several rivers[215], and abundance of crocodiles, snakes, and large lizards; from the last of which they expressed the fat, which they used for oil, and the flesh for food: but they had neither corn nor vines. Some few merchants from Mooza visited this island; and some that frequented the coasts of India and Cambay touched here occasionally, who imported rice, corn, India cottons, and women[216] slaves, for which they received in exchange very large quantities of the native tortoise-shell.

In the author's age, this island was subject to Eleázus, the king of Sabbatha, who set the revenue to farm[217], but maintained a garrison for the purpose of securing his receipts and supporting his authority. This fact is similar to what we had occasion to notice on the coast of Africa, where several of the ports in Azania (or Ajan) were subject to Charibáel and Cholêbus, whose territories were in Yemen; Niebuhr informs us, that Socotra is at this day subject to the sheik of Keschin, who has considerable possessions in Hadramaut; and Keschin,

[214] Al Edrissi, speaking of the tortoise-shell at Curia Muria, says, dorsa testudinum ex quibus conficiunt sibi incolæ Iaman paropsides ad lavandum & pinsendum. P. 24.

See Hackluyt, ii. 331. where there is a distinction (but very incorrect) between cinnabar, *dragon's blood*, and cinnabar, *vermillion*.

N. B. The p. 331. is an error of the press.

[215] "The water here is very good; it runs "from the mountains into a sandy valley "among date trees. The natives are civil to "strangers, but very poor; and the only commodity to trade with, is rice [an article in "the Periplûs], for which we had in exchange "some cows, goats, fish, dates, good aloes, "and gum dragon. The prince, or viceroy, "resides at Tamarida, on the *north* side of "the island." Capt. Blake, Oriental Navigator, p. 149.

[216] Σώματα θηλυκὰ διὰ σπάνιν ἐκεῖ προχωρεῖντα; carried there, because they had few women for the haram.

[217] Ἡ νῆσος ἐκμισθοῦται.

which lies a few leagues to the westward of Fartaque, cannot be very distant from the territory of Eleázus.

The consistency of these circumstances in the ancient and modern accounts, may induce a persuasion that we have traced out our way so far with certainty and precision; the next step we are to advance, is the only one on the whole coast, which will raise a doubt, and which has certainly been the source of the general opinion embraced by modern [218] geographers, that Suágros is not Fartaque, but Ras-el-had.

XVI. MOSKHA AND OMANA.

I SHALL state this circumstance in the very words of the author; for he says, "Adjoining to Suágros there is a bay "which runs [219] deep into the main land [of] O'mana, six hun- "dred stadia in width; after this there are high mountainous "rocks steep to, and inhabited by a [wild] race, that live in "caverns and hollows of the cliff. This appearance of the "coast continues for five hundred stadia more, at the ter- "mination of which lies a harbour called Moskha, much fre- "quented [220] on account of the Sachalitick incense which is "imported there."

It [221] is the mention of Moskha and O'mana here that necessarily suggests the idea of Maskat, which is in Oman, and the

[218] Bochart supposes Suágros to lie between Hadramaut and Sachalites; which is true in regard to the Sachalites of Ptolemy, and then it is Fartaque. Phaleg. 106.

[219] Ἐπὶ βάθος ἐνδύνων εἰς τὴν ἤπειρον, Ομανα.

[220] Ὅρμος ἀποδεδειγμένος, the appointed, the regular port.

[221] Consult d'Anville's Memoire sur le Mer Erythrée, Academie de Belles Lettres, tom. xxxv. p. 598.

principal port of trade in the province: the description of the mountainous coast is characteristic; and the distance, supposing Ras-el-had to be Suágros, not incongruous. I cannot account for this coincidence; but I do not think that Moskha is Maskat, because Maskat is beyond C. Ras-el-had; and I shall shew immediately, by the islands which succeed Moskha, that we are not yet arrived at Ras-el-had by four hundred miles. Neither will the Moskha of Ptolemy solve the difficulty; for he carries it farther back than the Periplûs, and has placed it to the westward of Suágros, which is *his* Fartaque likewise, as well as the Fartaque of our author.

The mention of O'mana here is still more unaccountable: but I was in hopes to have reconciled it by means of a river O'rmanus, or Hórmanus, which Ptolemy has in his Bay Sachalítes, and which he brings down from a place called O'mana. This, however, is not to be depended upon; for his map is so distorted on this part of the coast, that it leaves the whole matter in uncertainty. One circumstance only can be deduced from it; which is, that his Ormanus and O'mana are both to the westward of Ras-el-had, as well as the O'mana and Moskha of the Periplûs: the proof of which is, that they both precede his Koródamon, and Koródamon must be the representative of Ras-el-had, as it is his extreme point east of the whole peninsula.

There are no data for placing the Moskha of the Periplûs, but the distance of eleven hundred stadia from Suágros; and this measure brings it nearer to Seger, the Sachalítes of Ptolemy, the Schœhr of the moderns, than any other place it can be referred to. At Moskha, the mention of the Bay Sa-

chalítes [222] is again introduced by the Periplûs; for the author informs us, that throughout the whole extent of that bay, in every port, the incense lies in piles without a guard [223] to protect it, as if it were indebted to some divine power for its security. Neither is it possible to obtain a cargo, either publicly or by connivance, without permission of the king. Nay, if a single grain were embarked clandestinely, good fortune indeed must the merchant have who could escape with his vessel from the harbour.

At Moskha there is a regular intercourse by sea with Kanè; and such vessels as come from Limúrikè [224] and Barugáza, too late in the season, and are obliged to pass the adverse monsoon in this port, treat with the king's officers to obtain frankincense in exchange for their muslins, corn, and oil [225].

If it should now be asked, whether I am myself satisfied with the account here given of O'mana and Moskha, I could not answer in the affirmative. These two names certainly throw a shade of obscurity and difficulty over the arrangment of the coast; and if this barren subject should be reviewed by a future commentator, much pleasure would it be to see those obstacles removed, which I have not been so fortunate as to surmount.

Still that, upon the whole, the assumption of Fartaque for Suágros is right, depends upon proofs now to be produced,

[222] This has an appearance as if the author had two bays of the same title, as Al Edrissi has, that is, a Sachar prior and ulterior; but there is no other proof that this distinction is ancient.

[223] There is nothing very extraordinary in this: plenty of a commodity, however valuable, and familiarity with the sight of it, take off from the edge of depredation. Bars of silver lie apparently without a guard in the streets of Panama; but in Seger, besides the protection of the gods, the sheik seems to keep good watch, if a single grain cannot be got off till the duty is paid.

[224] Canara and Cambay.

[225] Probably ghee, or liquid butter.

which are incontrovertible; for we are now advancing to two groupes of islands, which are the most conspicuous of any that are attached to the coast of Arabia on the ocean; and as islands, rivers, and mountains, are features indelible, in these we cannot be mistaken.

XVII. ISLANDS OF ZENÓBIUS, OR CURIA MURIA.

At fifteen hundred stadia distance from Moskha, which I have supposed to be Seger; and at the termination of the district called Asikho, there are seven islands, almost in a line, called the Islands of Zenóbius. Now the distance answers to make these the islands in the Bay of Curia Muria; and it is to these islands that the Arabian fable of two islands, inhabited one by men, and the other by women, applies. In Oriental geography, they are placed at a great distance to the south; but the origin of the fable is on the coast, and truly Arabian. Al Edrissi calls them Chartan[226] Martan; and though he says they are only four, and four only they appear on our charts, it is conclusive in their favour, that he styles the bay Giun-al-Hascisc[227]; for Hasek (the Asikho of the Periplûs) is the principal town in the bay at the present hour. Hasec[228] Al Edrissi calls it himself in another place, where he mentions only two

[226] Bochart says, that by a change of the points, he reads Curian Murian for the Chartan Martan of Al Edrissi. See Stuckius.

[227] Sinus Herbarum, Al Edrissi, p. 22.—P. 27. he makes Hasec the city, and Al Hascisc the bay; but are they not the same name?

[228] Here Ptolemy places the Ascitæ, whose name he derives from ἀσκὸς, because they sail on floats supported on inflated skins; but this is giving a Greek derivation of an Arabick name. Bochart conjectures, with much more probability, that they are the inhabitants of Hasek; and that Ptolemy's Mæphat is a corruption of Merbat, as it is written in Al Edrissi, the C. Morebat of our charts. Phaleg. 106.

islands, as Chartan and Martan; and says, it is a small city, but populous, and the bay deep and dangerous. The four islands have now obtained the names of Halki, Sordi, Halabi, and Deriabi; to which Captain Bissell adds a fifth, called Redondo (p. 25.): perhaps rocks and islets make them seven; for seven they are in Ptolemy also, placed in the same relative situation between Fartaque and Ras-el-had, though not correct in their vicinity to the coast.

XVIII. SARAPIS, OR MAZEIRA.

From Hasec, or Asikho, we have, first, a tract inhabited by a barbarous tribe [229], not subject to Arabia but Persis [230]; and at the distance of two thousand stadia from the Islands of Zenóbius, another island called Sarápis. Sarápis, it is added, is an hundred and twenty stadia from the coast, two hundred stadia in breadth, and contains three villages, inhabited by priests, or recluses, of the Icthuóphagi, who speak the Arabick language, and wear girdles or aprons made of the fibres of the cocoa [231]. Plenty of tortoise-shell, and of a good quality, is found here, on which account it is regularly frequented by the small vessels and barks from Kanè.

[229] Ἦν ἀφ' ὕψες παραπλέοντι ὡς σαδίες δισχιλίες ἀπὸ τῶν Ζηνοβίε; rendered by Hudson, Hanc ubi ex supernis locis prætervectus fueris: but ἀφ' ὑψες means keeping off shore by a direct course, in opposition to περικολπίζοντι, or following the bend of the coast.

[230] This is no more extraordinary than that the sovereigns of Arabia should have territories on the coast of Africa. In Niebuhr's time, the sheik of Abu Shahr, or Busheer, in Persis, was master of Bahrain on the western coast of the Gulph of Persia.

[231] Περιζώμασι φύλλων ΚΟΥΚΙΝΩΝ. We find the name of the Cocoa Palm-tree (as far as I can learn) first mentioned in this work. Pliny had obtained it likewise. Cloth is still made of the fibres of the nut: whether the leaves afford a substance for weaving, or whether they were themselves the apron, may be doubted; the text is in favour of the leaves.

If we should now consult the chart, and examine the size of this island, and its distance from the isles of Zenóbius, which we may estimate by the stadia at about two hundred miles, we identify it to a certainty with Mazeira; for there is no other island of this size, or at an hundred and twenty stadia from the coast, or perhaps capable of containing three villages, any where to the westward of Fartaque, or the eastward of Ras-el-had. It must therefore lie between these two points, and precisely ascertain, that we are past the one, and not yet arrived at the other; and likewise, that the isles of Zenóbius must, by their distance and relative situation, be the Curia Muria of the present day, notwithstanding their disagreement in point of number.

Mazeira is well known to modern navigators: its size and situation are sufficiently ascertained, and there is a channel[232] between the island and the main, through which English ships have passed. D'Anville has supposed that Sarápis is the same as Mazeira, without considering that if it be so, it is to the west of Ras-el-had, and that therefore his Suágros, which is fixed at Ras-el-had, cannot be correct.

XIX. ISLANDS OF KALAIUS, OR SUADI.

Upon leaving Sarápis, we have another distance of two thousand stadia, and then another group, called the Islands of Kalaius. The distance is too short[233], but the islands are those

[232] Oriental Navigator, pp. 167, 168.

[233] I should read τρισχιλίως for δισχιλίως; but though I have suggested corrections, I have never ventured on an alteration of the text.

of Suadi or Swardy, which lie between Maskat and Sohar, and which, according to M'Cluer[234], are formed into four ranges for the space of seven leagues, with a clear passage between them. In assuming these islands for those of Kalaius, there can be no error, for the language of our author is precise: he says, that as you are now approaching the Gulph of Persia, keeping close[235] round the coast, you change the direction of your course to the NORTH. This is literally true at Ras-el-had, and no where else on the coast; for Ras-el-had is the extreme point east of all Arabia, as Koródamon is in Ptolemy: and if I had found that the monsoon was divided by this cape, as it is by Gardefan, I should have sought for an etymology in Greek

[234] Oriental Navigator, p. 181. 175. 177.

[235] Περικολπίζοντι δὲ τὸν ἐχομένην ἤπειρον, εἰς αὐτὴν τὴν ΑΡΚΤΟΝ ἤδη περὶ τὴν εἴσοδον τῆς Περσικῆς θαλάσσης, κεῖνται νῆσοι πλεόμεναι, [πλείονες, Stuckius.] Καλάιυ λεγόμεναι νῆσοι, σχεδὸν ἐπὶ σταδίους δισχιλίους παρεσταμέναι τῇ χώρᾳ.

Thus rendered by Hudson:

In sinu autem vicinæ continentis, ad septentriones, prope ostium maris Persici insulæ jacent, ad quas navigatur, Calæi insulæ dictæ, quæ fere bis mille stadiorum intervallo a continente sunt disjunctæ.

But how islands that lie two hundred miles from the coast, can be said to lie in a bay of the continent, is not easy to comprehend. I propose διαπλεόμεναι, or παραπλεόμεναι, *passed* or *sailed through*, for πλεόμεναι, and to render the passage thus:

[Proceeding on your course from Sarápis] you wind round with the adjoining coast to the north; and as you approach towards the entrance of the Gulph of Persia, at the distance of two thousand stadia [from Sarápis] you pass a group of islands, which lie in a range along the coast, and are called the Islands of Kalaius.

I imagine that παρεσταμέναι τῇ χώρᾳ cannot be rendered better than by describing the islands as "*lying in a range.*" Perhaps it should be read παρατεταμέναι; and this is the precise distinction of M'Cluer. ἤδη may be read either with εἰς αὐτὴν τὴν Ἄρκτον, or with περὶ τὴν εἴσοδον, "*as you are just approaching the Gulph of Persia lie islands;*" and I place a comma at δισχιλίους, in order to make it express the distance from Sarápis: but if it be joined with the final clause, it must be rendered, "*the Islands of Kalaius, which lie in a range* "*two thousand stadia along the coast.*" This is not true; neither can we stretch the seven leagues of M'Cluer, or one-and-twenty miles to two hundred. Περικολπίζοντι, signifies literally, to *keep close to the shore*, to *follow the windings of the shore*. But whatever doubt there may be concerning the contents of the whole passage, nothing can be more plain than this one circumstance, that the course of the voyage is changed here to the NORTH, and this particular can be true only at Ras-el-had. This is the truth we have been searching for, and I think the proof is conclusive.

as the *divider* or *subduer* of the west wind; but I can learn nothing of the monsoon: and Corus, notwithstanding its meaning in Latin, I cannot find as the name of a wind in Greek. But the character of the cape itself is distinct, for as soon as you are past it, the coast falls back again to the north-west. If we could reckon the two thousand stadia from the point where this alteration of the course takes place, that is, from Ras-el-had, the distance also would correspond.

But the mention of these islands is another irrefragable proof that we are correct in fixing Suágros at Fartaque, and Koródamon at Ras-el-had; for the appellation of Kalæu is preserved in Pliny (lib. vi. 32.), and Cape Kalaiat still appears in our modern charts, immediately after passing Ras-el-had. The Oriental Navigator says it is not a cape, though it has obtained the name; but a cape it is called by d'Anville, d'Apres, and Capt. Bissell, with a town and river of the same name. It is written Kalgat, Coliat, Coriat, but Cqelhat by Al Edrissi; and though it is at a considerable distance from the Suadi Islands, there can be little doubt of its relation to them, as there is no such cluster of islands except this on the coast. But if this relation should be questioned, the mention of Kalaiou, with the change of the course to the north, marks Ras-el-had to a certainty, which is the great object in view. The modern name of these islands, Suadi, is a corruption, by means of Swardi, from Suhardi or Sohardi; and Sohar, the Tsur of Al Edrissi, is the place on the continent near which they lie.

After establishing these several points, if we should review the whole course from Fartaque to Ras-el-had, there is nothing to interfere with the general statement, except the mention of O'mana and Moskha; and no single circumstance ought to

stand in competition with the whole. At the distance of eighteen hundred years, it is difficult to say whether the obscurity lies with us, or the author; one should rather acquit the author, who is so correct in other respects, and look for a solution from some future lights, which may appear, either from a more correct knowledge of the coast, or from some better readings of the commentators, considering that the copy which we have is certainly defective, and that no manuscripts are to be expected.

The natives, on the main opposite to these islands, are said to be treacherous, and their vision to be defective during the light of the day: what the latter circumstance may allude to, it is not material to inquire, but their treachery is natural if they are Bedouin Arabs, as Lieut. Porter[236] says they were in his time at Sohar, and not civilized in their behaviour to the people of his boat.

XX. ISLANDS OF PAPIAS.

We have now the Islands of Papias, and the Fair Mountain, with the entrance of the Persian Gulph: for the first, we must look to two or three small islands on the coast, beyond Sohar[237], towards the north; and at the last of these the Journal places the Fair Mountain, which would answer sufficiently to Cape Fillam, if that be high land; and not far from Fillam are the Straits.

[236] Oriental Navigator, p. 177.

[237] Sohar, according to Al Edrissi, was once the seat of the China trade, antecedent to the establishment of it at Keish.

It is not impossible, however, that the Islands of Papias may be the Coins, which lie immediately off the entrance of the gulph; for, in a letter of Lieut. M'Cluer to Mr. Dalrymple, he writes, "the Great Coin .... lies in lat. 26° 30′ 0″ north .... "and there are four other islands between this and Cape Mus- "seldom, all of them smaller than the Great Coin, and none "of them inhabited .... Besides these, there are seven others "close in, which are not easily distinguished from the Arabian "shore." But if these islands are within Moçandon, they do not correspond with those of the Periplûs, for which I find no sufficient representatives, except in Green's [238] Map of Arabia; but his authority does not appear.

XXI. SABO, ASABO, OR MOÇANDON.

It is well known that Moçandon is represented in Ptolemy by the black mountains called Asabo, the promontory of the Asabi; and that Sabo signifies South, designating, as it should seem, in the mind of Arabian navigators, the extreme point south of the Gulph of Persia. A tribe is also noticed in the neighbourhood, which is called Macæ both by Ptolemy and Arrian; and in Macæ we obtain probably the rudiments of Moçandon which *we* have from the Portuguese. But the Orientalists give a different etymology, and inform us, that Mo-salem is the Cape of Congratulation.

[238] See Astley's (Green's) Map of Arabia, at the end of Vol. I.

Moçandon is of vast height, and frightful appearance; it forms, with Mount[239] Ehowrs, or Elbours[240], on the opposite shore, the entrance to the gulph, which is near forty miles broad, estimated at sixty in the Periplûs; and Elbours is called the Round Mountain of Semiramis: it is round in fact, and has its modern name of Elbours from its supposed resemblance to the Fire Towers of the Guebres or Parsees.

Moçandon is a sort of Lizard point to the gulph; for all the Arabian ships take their departure from it, with some ceremonies of superstition, imploring a blessing on their voyage, and setting afloat a toy, like a vessel rigged and decorated, which, if it is dashed to pieces by the rocks, is to be accepted by the Ocean as an offering for the escape of the vessel.

Whether the author himself passed this cape, and entered the gulph, is very dubious; from the manner of the narration, I should conclude he never passed the straits; for he mentions only two particulars in the whole of the gulph, and then introduces the passage across the open sea from Arabia to Karmánia.

XXII. TEREDON, APOLOGUS, OR OBOLEH.

But the two particulars noticed are remarkable: the one is the Pearl Fishery, which extends on the bank great part of the way from Moçandon to Bahrain; and the other is the situation

[239] These two mountains opposite, are the Owair and Kosair of Al Edrissi, p. 4.

[240] El-Bours signifies a fire tower of the Parsees, and the mountain is round, like an object of that sort; but Ehowrs, as it is written in Cutler, is the nautical enunciation of the Arabick Owair; and Owair is the limit of the Gulph of Persia on the Karmanian side, in Al Edrissi.

of a town called Apólogus, at the head of the gulph on the Euphrátes, and opposite the Fort of Pásinus or Spásinus. There can be no hesitation in adopting the opinion of d'Anville, that Apólogus is Oboleh, upon the canal that leads from the Euphrátes to Basra; for Oboleh is situated, according to Al Edrissi [241], at the angle between the canal and the river; and he adds, that the canal covers it on the north, and the river on the east; consequently, this is as nearly opposite to the Fort of Pásinus, as the canal is to the Haffar River, which communicates with all the mouths of the Tigris and Euphrátes.

Apólogus is Greek in its external form, but much more properly deduced, as d'Anville observes, from Oboleh, which, with the strong Oriental aspirate, becomes Obolehh or Obolegh. We may consequently assume this for a proof of its existence as a place of commerce at so early a period, when it had probably taken place of Terédon or Diridótis, as Basra took place of Oboleh under the second Caliphate [242] of the Mahomedans; but that Oboleh continued a mart of consideration long after the building of Basra [243], we may be assured by Al Edrissi's making it the termination of the gulph, as well as the Periplûs; and Oboleh, or a village that represents it, still exists between Basra and the Euphrates; the canal also is called the Canal of Oboleh.

[241] P. 121.

[242] Abilfeda Reiske, p. 113.

[243] Al Edrissi mentions Basra sufficiently; but in his general description he says, Ab mari Sin derivatur mare Viride, estq; sinus Persiæ et Obollæ, ... sinus pervenit usque ad Obollam prope Abadan, ibiq; terminatur; pp. 3, 4.

Mare Viride, - -	the Persian Sea.
Mare Fulvum, -	the Caspian.
Mare Candidum, -	the Propontis.
Mare Nigrum, -	the Euxine.
Mare Venetum, -	the Blue Sea, or Mediterranean.

Why do we dispute so much about the mare Rubrum?

Terêdon had been a city of great trade from very remote times; that is, from the age of Nebuchadnezzar to the Macedonian conquest. It seems to have continued so till the time of Augustus, for it is mentioned by Diony'sius[244]; deserted afterwards, perhaps, from the failure of water in the Khore Abdillah, or ancient mouth of the Euphrates, and replaced by Oboleh, probably during the dynasty of the Arsácides. The Babylonians, who commanded the river from the gulph to the capital, doubtless made use of it as the channel of Oriental commerce; and the traffick which had passed by Arabia, or by the Red Sea, through Idumêa, to Egypt, Tyre, and other places on the Mediterranean, was diverted by Nebuchadnezzar, after the destruction of Tyre, to the Persian Gulph; and through his territories in Mesopotamia, by Palmy'ra and Damascus, it passed through Syria to the West. After the conquest of Babylon by Cyrus, the Persians, who were neither navigators to the East, nor attentive to their frontier on the West, suffered Babylon, Nineveh, and Opis, to sink into ruin; the course of trade, therefore, returned to Arabia on the south, to the Caspian[245] and Euxine on the north: Idumêa became again the resort of the caravans; and Tyre rose out of its ashes, till its power enabled it to maintain a siege of eight months against Alexander, in the career of his victories.

[244] Diony'sius is said to be the versifier of Eratósthenes's Geography; if so, it is not quite a proof that it did exist in his time.

[245] See Strabo, p. 509. The trade passed by the Oxus into the Caspian Sea, and from the Caspian up the Cyrus and Araxes into Albania; then down the Phasis, or A'nthemus, into the Euxine; in Justinian's time, by Dubios, a country eight days from Theodosiópolis in Crimêa, where the trade from India, Iberia, and Persia, meets the Roman merchants. Procopius de Bello Persico, p. 149.

XXIII. ORIENTAL COMMERCE BY THE GULPH OF PERSIA.

What views this conqueror had after his first victories, we can only conjecture; but after his return from India, we may be assured that his comprehensive mind had embraced all that vast system which was afterwards completed at Alexandria. His successors, the Ptolemies in Egypt, and the Seleucidæ in Syria, were rivals in this commerce; Palmy'ra, Damascus, Antioch, and Edessa, all lie on the line of the caravans from the Persian Gulph; the Caspian and the Euxine were again frequented, and the commerce on this side enriched the kingdoms[246] of Prûsias, A'ttalus, and Mithridátes; while the navigation on the Indian Ocean, built upon the same foundation, made Alexandria the first commercial city of the world. Egypt, maintaining its intercourse with the East, in the first instance by means of the Sabêans, and finally, by fleets fitted out from its own ports on the Red Sea, for India direct.

[246] It would be foreign to the present work to pursue the inquiry into this commerce, as carried on by land on the north. But it seems to have existed in the time of Heródotus, who mentions the trade on the Euxine conducted by interpreters of seven different languages: in the time of Mithridates, 300 different nations met at Dioscûrias in Colchis; and, in the early time of the Roman power in that country, there were 130 interpreters of the languages used there; but now, says Pliny, the city is deserted; that is, in Pliny's age, the Romans would not suffer the Parthians, or any of the northern nations, to traffic by the Euxine, but confined the whole trade to Alexandria, and the maritime intercourse with India. See Herôdotus, lib. iv. and Pliny, lib. vi. 5.

Dioscûrias was on the A'nthemus, one of the rivers that came out of Caucasus into the Euxine.

Dioscûrias was called Sebastópolis in Adrian's time, and the last fortification of the Roman empire. Arrian, who visited it, mentions nothing of its trade. Arriani Periplûs Maris Euxini, p. 18. I find nothing of the A'nthemus; but the Phasis was navigable for thirty-eight miles. Second Periplûs Eux. Sea, Hudson.

In the following ages, the dynasty of the Arsácides divided these profits with the Romans; and in the decline of the Roman power, the revived Persian dynasty assumed such an ascendancy, that in the time of Justinian the Romans had recourse to the powers of Arabia[247] and Abyssinia, to open that commerce from which the Persians had excluded them; and when the Persian dynasty sunk under the power of the Chaliphs, the Mahomedan[248] accounts of the plunder found at Ctesiphon, prove the full possession of the Indian commerce by the Persians.

XXIV. CAIRO.

Upon the erection of two chaliphates, one at Bagdad, and the other at Cairo, the commerce of India was again divided; but the greatest part of the precious commodities which reached Europe, came through the hands of the Venetians from Alexandria, till the Genoese opened the northern communication again by means of the Euxine, the Caspian, and their settlement at Caffa in the Crimea.

[247] Procopius, lib. i. c. 20. mentions Justinian's application to the king of Abyssinia to obtain the importation of silk; but the Abyssinians could not effect this, the Parthians [Persians] having seized on the emporia. Paolino, p. 96.

[248] When Heraclius took Destagherd, the palace of Chosroes, he found in it aloes, aloes wood, mataxa or silk thread, pepper, muslins, or muslin frocks without number, sugar, ginger, silk robes, wove carpets, embroidered carpets, and bullion. Cedrenus, p. 418.—Μεταξα . . . . . Σηρῶν νήματα. Glycas, p. 270. who gives the same history of procuring silkworms as Procopius.

When Sad, the general of Omar, took Ctesiphon or Modain, the carpet is particularly mentioned. See Abilfeda Reiske, 70. Other particulars are mentioned in a variety of authors.

XXV. CRUSADES.

In the eleventh and twelfth centuries, the Crusades opened to the eyes of the Europeans the sources of this Oriental wealth. The loss of the kingdom of Jerusalem enabled them to discover, that the power of Saladin was founded on the revenue derived from the commerce which passed through Egypt; and the work of Marin Sanuto [249] is a Memorial presented to the Pope, and the principal sovereigns of Europe, in order to instruct them, that if they would compel their merchants to trade only through the dominions of the chaliphs of Bagdat, they would be better supplied, and at a cheaper rate; and would have no longer to fear the power of the soldans in Egypt.

What those sovereigns did not, or could not do, was effected three centuries later by the discovery of the Cape of Good

[249] This curious work is inserted in the Gesta Dei per Francos: it is highly interesting, both upon account of the commercial intelligence it contains, and the clear-sighted speculations of the author. I owe the knowledge of it to Bergeron, who has cited it in his Treatise on Commerce annexed to his collection of Voyages, which is itself also a most valuable work. The editor of the Gesta Dei, &c. says, he had the Memorial of Sanuto, in two MSS. copies, from Scaliger and Petavius; that one of these was bound in velvet, and ornamented with clasps, &c. so as to assure him that it was one of the original copies, presented by Sanuto himself to some one of the princes: if so, I imagine it contains the oldest map of the world at this day existing, except the Peutingerian Tables; for Marin Sanuto lived in 1324. His map, however, is wholly in the Arabic form; and, I conclude, built on one that he had procured when in Palestine. There is another Livio Sanuto, a geographer in the 16th century, whose work I have seen in the King's Library, but not examined; it seemed a valuable work for the age. In Marin Sanuto's time the India trade had settled again at Aden, where it was when the Romans destroyed that city 1300 years before. See lib. i. c. 1. The whole is worth consulting. Sanuto's map will be found in the fourth Dissertation.

Hope: to this discovery Europe is certainly indebted for the decline of the Turkish power, which at that time threatened the whole Western world; and the various other important consequences which ensued, are too well known, and have been too well detailed in history, to require insertion in the present work.

Of the interior of Arabia we know little to this day; but that, notwithstanding the danger of robbery, caravans of great value traversed it in all ages, is authenticated by sufficient evidence. Previous to the Periplûs, we have the testimony of Strabo and Agathárchides; in the middle ages, the account of Al Edrissi; and, in our own time, we want no other proof than the English importations at Jiddah, which reach Mecca at the time of the Pilgrimage, and from thence seem to be dispersed over the whole peninsula.

At Grane likewise, in the north-west angle of the Persian Gulph, there has been a considerable importation till within these few years; and at El Catif, near Bahrain, which is the Gerrha of the ancients, there is some commerce besides the returns for the Pearl Fishery; but with the progress of which, inland, we are unacquainted.

Somewhere in the neighbourhood of Grane was the seat of Abdul Wahab, who, with his army of deists and democrats, has plundered Mecca within these three years, upon the same principle as his brethren in Europe demolished the Church of their own country, and with much the same event to the plunderers; for Abdul Wahab is said to have fallen by the hands of an assassin, as the first democrats of France have mostly perished in the course of the revolution. His followers still

exist as a sect, and are spreading their ravages with as much rapidity as the first Mahomedans: they have plundered Mecca again, Kerbela and Meschid Ali, but do not yet seem to have assumed a regular establishment in any of the regions they have laid waste.

XXVI. GERRHA.

GERRHA is one of the few towns in Arabia that Pliny has enabled us to fix with certainty; for he comes down the western coast of the gulph, which, he says, was never explored till visited by Epíphanes; and which remains to this hour in a state of obscurity: but Pliny, after passing the island of Ichara, and one or two obscure places, mentions Gerrha as a city five miles round, with its walls or towers built of fossil [250] salt. This is a circumstance true (I think) only at Ormus and El Katif, which, added to the size of the city, ascertains its identity. It is necessary to be particular in this respect, because the Gerrhêans are the first conductors of the caravans upon record; and it is highly probable, that long previous to history they enjoyed the profits of this traffic; for Agathárchides [251], who first mentions them, compares their riches with those of the Sabêans; and adds, that they brought much wealth into Syria, which was at that time subject to Ptolemy; and furnished a variety of articles for the industry of the Phênicians.

[250] Strabo also, lib. xvi. p. 766. Charræ had the same use of fossil salt, Plin. xxxi. 7.

[251] Hudson Geog. Min. Agatharchides, p. 64. ἐκτεταμιευμένων πᾶν τὸ πίπτον εἰς διαφορᾶς λόγον ἀπὸ τῆς Ἀσίας καὶ τῆς Εὐρώπης, the factors for all the precious commodities of Asia and Europe.

By this we understand, that they crossed the whole peninsula to Petra in Idumêa, from which city we know that the intercourse was open with Tyre, Phênicia, and Syria. Strabo[252] informs us, that they were the general carriers of all the produce of Arabia, and all the spices, or aromatics; but he adds likewise, that Aristobûlus contradicts this, and says, that they go up the Euphrates in boats, to Babylonia and Thapsacus, and from thence disperse their commodities in all directions by land. Both these relations may be true, as applied to different periods, in consequence of the obstructions they might meet with in their course, from the different powers of the several countries through which they were to pass[253].

The Gerrhêans, we may naturally suppose, from their situation in the Gulph of Persia, and from their proximity to the opposite coast of Persis and Karmania, would lie more convenient, and more directly in the route of communication with the East, than any other tribe. And, as Agathárchides says, that the Minêans and Gerrhêans both met at Petra as a common centre, we have two routes across the peninsula, correspondent to the two sorts of commerce, which ought naturally to pass in different directions: for from Gerrha, the produce of India, and, through the country of the Minêans the frankincense of Hadramaut, would regularly be directed to Idumêa.

[252] Πεζέμποροι δ' εἰσὶν οἱ Γερραῖοι τὸ πλέον τῶν Ἀραβίων φορτίων καὶ τῶν Ἀρωματικῶν. Lib. xvi. p. 766. The Gerrhêans are the travelling merchants in caravans, and bring the produce of Arabia, and the spices of India.

[253] See Al Edrissi, p. 121.

XXVII. MINEANS.

The site[254] of the Minêans is not easy to fix; but by a comparison of different accounts, they were south of Hedjaz, north[255] of Hadramaut, and to the eastward[256] of Sabêa; and they were the carriers to all these provinces: their caravans passed in seventy days from Hadramaut to Aila, as we learn from Strabo[257]; and Aila is but ten miles from Petra. The commodities brought by this caravan would be aloes, gold, myrrh, frankincense, and other precious gums or aromatics; while those from Gerrha would consist of cottons, spices, and the produce of the East.

As navigation increased on the coast, this mode of intercourse, and its profits, would naturally diminish. When the Ptolemies sent their fleets to Sabêa; when the Greeks, Egyptians, or Romans, reached India by the monsoon, the greatest part of what had passed through Arabia would be diverted into a new channel; in the same manner as the discovery of the Cape of Good Hope ruined the commerce of Alexandria. But that some intercourse existed, and that some caravans traversed Arabia, both in the middle ages, and do traverse it even to this hour, is a fact that cannot be disputed.

[254] Bochart Phaleg. p. 121. places them at Carno 'l Manazoli, supposing it to be the Carna or Carana of Pliny. Ptolemy places them much farther south. Carno 'l Manazoli is but three stations south of Mecca. Al Edrissi.

[255] Atramitis in Mediterraneo junguntur Minæi. Pliny, vi. 28.

[256] Dionysius places them on the coast, but I think Dionysius alone.

[257] Lib. xvi. p. 768. the time seems in excess; but as the distance is taken from Hadramaut to Aila, it may not exceed the proportion of 60 days from Minêa to Nera, attributed to Gallus.

After the conquest of Persia by the Mahomedans, a road was made across the whole of the peninsula, from Mecca[258] to Kufa: it is reported to have been seven hundred miles long, marked out by distances, and provided with caravanserais, and other accommodations for travellers. Into this road fell the route from Basra, and from El Katif or Gerrha. The province of which El Katif is the capital, is called Bahrain[259] by Al Edrissi, from the two islands of that name which are the principal seat of the Pearl[260] Fishery. He speaks of El Katif as a considerable city in his time; and he gives the routes from it south to Sohar, north to Basra, and west to Medina[261]; the country on the side towards Basra is a desert seldom frequented by merchants, without villages, and inhabited only by Bedouins. But the route to Medina falls into the road that leads from Basra; and both Basra and El Katif are at equal distance, that is, twenty stations from that city, where is the sepulchre of Mahomet. The road from Basra falls into that from Kufa at Maaden[262] Alnocra. I mention these circumstances, in order to shew the communications with El Katif, or Gerrha, in the middle ages; because they cannot be dis-

[258] From Mecca to Bagdat, according to Abilfeda, Reiske, p. 154. wells, lakes, mile-posts, for 700 miles. See Gibbon, v. 409. he road was made by Ol Madi Khaliph, anno Hejræ 169, the post goes in eleven days.

[259] Bahrain, in Arabick, signifies the two seas.

[260] Tylos margaritis celeberrima. Plin. vi. 28.

[261] There is another route supposed to be intimated in Strabo, from Gherra to Hadramaut; but the reading, instead of Γερραῖοι, is Γαζαῖοι, which, Salmasius says, ought to be Γαζαῖοι, from Gaza to Hadramaut forty days. If this were so, it contradicts another passage of Strabo, where he says, the Minêans were seventy days in going to Elana, which is a less distance. It seems highly probable that the Gerrhêans are meant in this place; for, as they were general carriers, it is probable they went to Hadramaut as well as in other directions.

[262] A Basra ad Medinam viginti stationes et hæc via coincidit cum extremitate Kufa, prope Maaden Alnocra, p. 121.

similar from those which were open when Gerrha was a centre of Oriental commerce; and the route which led to Medina requires only a little tendency to the north, to make it the ancient line of intercourse between Gerrha and Aila, and from thence through Petra[263] to Egypt, Tyre, and the coasts of the Mediterranean.

XXVIII. ANTIQUITY OF ORIENTAL COMMERCE.

So far as a private opinion is of weight, I am fully persuaded that this line of communication with the East is the oldest in the world; older than Moses or Abraham. I believe that the Idumêans, who were carrying spices into Egypt when they found Joseph in their way, obtained these spices by this very route. And if it is agreeable to analogy and to history that merchants travelled before they sailed, there is no course from India to the Mediterranean where so small a space of sea must be traversed as in this direction. Karmania is visible from Arabia at the straits of the Gulph of Persia; and in the infancy of navigation, the shortest passage would be preferred. The interior of Arabia, in all ages, contained Bedouins, whose profession was robbery; but the different tribes of robbers probably received a caphar instead of seizing the whole; as they do to this day from the caravans which pass between Basra and Aleppo. They are likewise not fond of fighting for the whole, when they can obtain a tribute for a part; and necessity would compel the merchants of those ages, as well as our own, to go in large

[263] Petra was only ten miles from Aila. Bochart Phaleg. 686.

bodies, and provided with arms for their defence. The manners of the Arabs have never changed; and it is reasonable to conclude, that merchants who have to treat with Arabs have changed as little in their precautions. Pliny [264] has preserved the memorial of these usages in the southern part of the peninsula; and there is every reason to conclude that they existed in all ages, before his time, as they do to the present hour.

It was to obviate these exactions that plans were formed to open a communication by sea. The Tyrians, as the principal merchants on the Mediterranean, and as the intermediate agents of Oriental commerce, either first conceived the idea, or derived it possibly from the Egyptians, whom we must suppose to have had an intercourse with India whether history records it or not. The first historical account we have, is the trade of Ophir. The alliance between Hiram and Solomon was indispensable; for Solomon was master of Idumêa, and the Tyrians could establish themselves at Ezion Geber only by his permission and assistance. Solomon furnished the opportunity, and Hiram the ships; the profit accrued to the partnership; and if this voyage were made to Ophir in Arabia, where it is universally confessed there was an Ophir, even by those who search for Ophir in Africa and India; such a voyage would at least obviate all the exactions attendant upon a communication by

[264] Ibi decimas Deo, ... regi vectigal, ... sacerdotibus portiones, scribisque regum .... sed præter hos, et custodes, satellitesque & hostiarii [Ostiarii] populantur. Jam quocunque iter est, aliubi pro aqua, aliubi pro pabulo, aut pro mansionibus, variisque portoriis pendunt ..... iterumque imperii nostri publicanis penditur.—I appeal to every English traveller, who has ever passed between Basra and Aleppo, if this is not an exact picture of the extortions practised upon a caravan; and yet caravans still pass, and still make a profit on their merchandize—the consumer pays for all.

land, and place Hiram and Solomon in the same situation as the Ptolemies stood, before a direct communication was opened between Berenikè and the coast of Malabar.

This rapid sketch of Oriental Commerce in all ages, as far as it can be traced upon historical evidence, is no digression, but an essential part of the work I have undertaken: my object has been, not merely to elucidate the Periplûs by a commentary, but to trace the progress of discovery to its source; a subject curious and interesting at least, if neither useful or lucrative. But to know what has passed in remote ages is the purpose of all history; and to collect, from a variety of sources, such intelligence as may enable us to distinguish truth from falsehood, if it has not the dignity of history, has at least a claim to approbation from those who know how to appreciate the labour of research, and the fidelity of investigation. Much that has been said may be controverted in particulars, and yet be correct upon the whole. I am not conscious of any preconceived system in my own mind, but have raised a superstructure upon the foundation of historical facts: these I have not warped, in order to accommodate them to an individual opinion, but have followed them wherever they led. I claim little merit but in concentrating these to a point; and if the same evidence should not produce the same conviction on others, I should as readily give way to those who are possessed of superior information, as I should maintain my ground against those who are pretenders to the science.

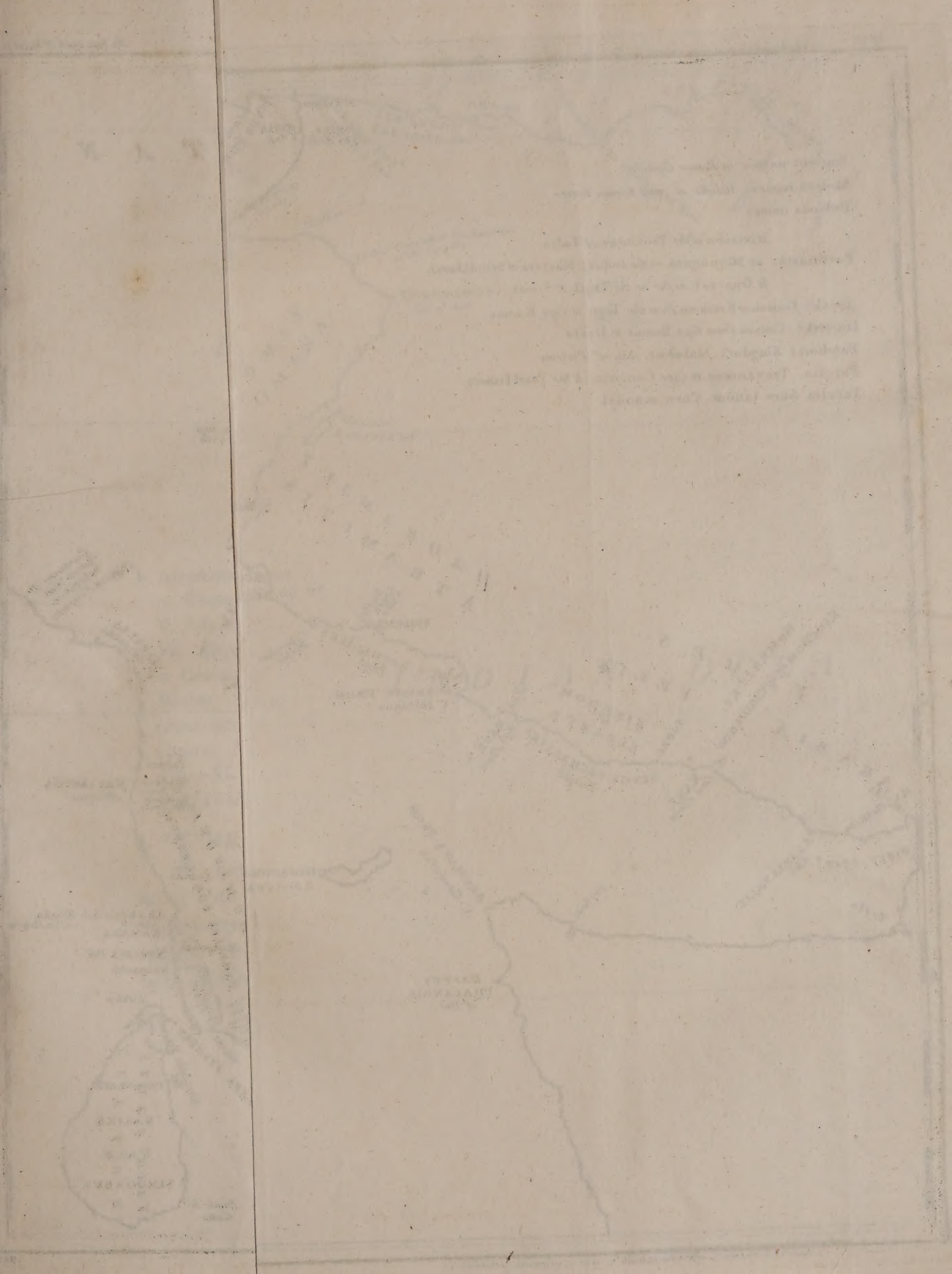
XXIX. CONCLUSION.

It is now necessary to bring this Book to a conclusion, in which the course of ancient navigation has been traced from the Gulph of Aila to the mouth of the Euphrates[265], embracing the whole sea-coast of Arabia on its three sides. The author does not appear, from the internal evidence of his work, to have personally explored the eastern coast of the Red Sea, or the western shore of the Gulph of Persia: he seems to have come down the Red Sea from Muos Hormus to Okêlis; or perhaps from Leukè Komè, but to have touched little upon the coast till he came to the Burnt Island. On the southern coast of the peninsula we can trace him, at almost every step, to Fartaque, and to Ras-el-had; but from thence he seems, without entering the Gulph of Persia, to have stretched over with the monsoon, either to Karmania, or direct to Scindi, or to the Gulph of Cambay. At those points we find him again entering into those minute particulars, which bespeak the descriptions of an eye-witness; while, of the parts previous to these, he speaks in so transient a manner, as to create a belief that he writes from the report of others: but on this question it is not necessary to decide, the reader must determine for himself. On the two coasts of Arabia which he has touched but slightly, I have endeavoured to fill up the outline which he has sketched; and on the third side, where he has entered into detail, I have endeavoured to follow him, step by step, as minutely as I have been able. But if the interior of Arabia is a desideratum in

[265] Properly the Tigris.

Geography, the coast likewise is far from being accurately defined: no ships from Europe now visit it for the purpose of trade; and those which come from India to Mokha or Jidda, seldom touch upon the coast towards the ocean, unless to obtain provisions when in distress. Such information as has been obtained from the English cruizers which have lately been in the Red Sea, and were at one time preparing to fortify Perim in the Straits, is inserted from Captain Bissell's Journal; and greater use would have been made of that intelligent officer's account, had it come to hand before the several sheets were in the press. As it is, only a few particulars could be introduced as opportunity offered, but they essentially contribute to the elucidation of the Periplûs. I have likewise made use of such lights as are afforded by the papers and journals of the officers of the East India Company, and which are collected in the work called the Oriental Navigator. Those who know the abilities and science of those excellent officers, will think their observations might have been sufficient for such an examination as I had instituted; but ancient navigators kept much nearer the coast, and noticed objects which are of small importance in the present state of the science. A minute particular often forms a characteristic of a port, a bay, or a shore, which we cannot hope to find in the common observations of modern officers, nor elsewhere, unless when an actual survey has taken place. In the voyage of Nearchus, as my own knowledge increased, I constantly found a greater correspondence in his Journal with the actual state of the coast: I have not been quite so fortunate in the present instance; nor do I think the author of the Periplûs to be compared with the Macedonian commander, but still he is, as

Vossius says, the only ancient author who has given a rational account of the countries or coasts he has described ; and in this, if we are able to pursue his steps, and elucidate his narrative, it is the performance of a service as gratifying to the curiosity of the Learned, as acceptable to the science of Geography.



Ancient names *in Roman Capitals*
Modern names *Italicks, or small Roman letters*
Dubious names ?

Division *of the* Provinces *of* India
Parthians. *at* Minnagara *on the* Indus, Masters *of* Scindi. Kuteh & Guzerat *as far as the* Tapti & Surat.
Ariakè. Concan *or* Kemkem *from the* Tapti *to Cape* Ramas.
Limurikè. Canara *from Cape* Ramas *to* Decla.
Pandions Kingdom. Malabar. Aii *of Ptolemy*.
Paralia. Travancore *to Cape* Comorin. *& the* Pearl Fishery
Paralia Sore-tanum. Coro-mandel.

INDIAN OCEAN

HINDOSTAN

PENINSULA of INDIA

ARABIA FELIX

HOMERITES
KINGDOM of YCHOLEBUS
YEMEN FELIX
KINGDOM of ELEAZUS
SAHAR
HADRAMAUT
ATRAMITIS
OMAN
OMANA

C. Fillam
MONS PULCHER
PAPIÆ Inf.
SINUS PERSICUS
Jasques
Suadi
KALAIOO Insulæ
Sohar
Maskat
Kalhat *from which the* KALAIOO *of the Periplus*
KORODAMON
Ras el had
Mazeira
SARAPIS Inf.
C. Mahrah
B. Curia Muria
ZENOBII Inf.
Shahr
MOSKHA
SINUS SACHALITES Ptol.
C. Merbat
SINUS SACHALITES Peripl.
SUAGROS PROM.
C. Fartaque
KANÈ ?
Kane ?
KANÈ
Cane Canim
ARABIA FELIX
Aden
SINUS ARAB.
Zeyla
Berbora
AROMATA PROM.
C. Gardefan
DIOSCORA *Dioscorida*
ZOCOTORA
DAFFUI
PHALANGIS
of Ptol.

TOMANA Emporium
KOMBANA Ptol.
TERABDON Sinus
PARAGON *Ptol.*
ORAIA?
C. Gandel
ALAMBATEIR Ptol.
ORA MARITIMA
SCYTHIE
EIRUS PRO.
S. CYTHIA
BARBARIKE
MINNAGARA
PARTHORUM REGNUM
KUTCH
SURASTRENE
KANTHI
SINUS EIRINUS
KUTCH
BARAKES
Jagat
LARIKE
Gulf of Cambay
Cambay
Mahi R.
Mais
BARUGAZA
LAMNAIUS Fl.
NAMADUS Ptol.
Verbudda
OZÈNE
Ougein
Baroach
NAVAGUNA Ptol.
Tapti R.
Surat
KAMMONI *Vicus*
Gulf of Cambay
Gulf of Surat
Ormanat pt.
Jumbeer
DIBA
Diu Isle
HERMOS Insula
SEMYLLA
ARIAKE
MAMBARI REGNUM
St. Johns Head
KALLIENA
Kallian
Bombay
Danda Rajapoor
PALAIPATMAI?
Severndroog
MELI ZEIGARA Peripl.?
ZIGERIS?
Zeigur Siddee
PALAIPATNAI?
Rajapoor
TAGARA Deoghur = *the Hill, or Seat of the Gods*
Elore
or Dowlatabad
Gheriah *Vizindruck*
SESEKREINAI
Burnt Islands
Vingorla
ÆGIDION Inf.
KAINETON Inf.
Murmagon
GOA
CHERSONESE
Sonda
Carwar
LEUKE?
Angadivi
Mirzeou
NAOORA
Onoor
TUNDIS
Barceloor
MUZIRIS
Mangaloor
Decla limit of Malabar
Neli-ceram
Ram d'Illi
Mount d'Illi
NELKUNDA
ELA BAKARE
MONS PURRIUS?
Calicut
BALITA?
Cochin
Coli Coulan
Coulan
Anjenga
KOMAR PROM.
C. Komorin
MALABAR
DIONIS REGNUM
AII Pol.
TRAVANCORE
PARALIA
CANARA
MALIARPHA
Meliapoor
Madras
St Theme
Betuma
of the Arabs
Puliacat
CORO MANDEL
PARALIA SORETANUM
Poduka
Kha beris Pol.
Cavery
KABER *of the Periplus*
KAMARA.
Negapatnam
NIGAMA Pol.?
Kalamedu
P. Pedro
Ramana
Ramiseram
Tutacorin
Madura
PANDIONIS REGIA
Kolam
PEARL FISHERY
Manaar
Ceylon
TAPROBANE
SALIKÈ
PALÆ
SIMOONDUS
Pointe de
Galle
Mal Dived
MASALIA
Masulipatan
Condavery R.
Iomanes
Solenus
Chryses Auriga

Published according to Act of Parliament, May 1st 1805. by Wm Vincent.

THE

PERIPLUS

OF THE

ERYTHREAN SEA.

INDIA.

BOOK IV.

I. *Introduction.*—II. *Course from Oman in Arabia up the Gulph of Persia, or to Karmania.*—III. *Omana in Karmania.*—IV. *Course to the Indus.*—V. *Scindi, Minnágara, Barbárikè.*—VI. *Cutch, Guzerat, Barugáza.*—VII. *Kingdom of Bactria, Tágara, Plíthana, Ozênè, Dekan.*—VIII. *Aríakè or Concan, the Pirate Coast, Akabaroos, Oopara or Súpara, Kallíena or Bombay, Semulla, Mandágora, Palaipatmai, Melizéigara, Tóparon, Turannos-boas, Sesekréienai, Aigidii, Kainítai, Leukè.*—IX. *Limúrikè or Canara, Naoora, Tundis, Nelkunda, Ela-Bákarè.*—X. *Kingdom of Pandíon.*—XI. *Hippalus, and the Moonsoon.*—XII. *Balíta, Cómarei, Kolkhi, Pearl Fishery.*—XIII. *Ceylon.*

I. THE productions of India, and the Eastern World, are not sought after with greater avidity at the present hour, than they were by the inhabitants of Europe in the remotest ages, and all the nations which encircled the Mediterranean. Luxury this was called by the philosophers and patriots both of Greece and Rome. But if every thing that is foreign

is luxurious, there could be no commerce in the world; and if every thing which is not strictly necessary for the support of life be superfluous, thirst might be satisfied without wine, and food digested without the addition of a relish. In this view, the most ordinary accompaniments of the table should be discarded; and salt and pepper should be enumerated among the gratifications [1] of a sensual appetite. But if both are stimulants, still they are no less salutary than grateful; and no reason can be given why salt should be considered as sacred at the table of the Greeks and Romans, while pepper was condemned as the indulgence of a voluptuary; unless that the one was a domestic produce, and the other an exotic. But barbarians were not to be enriched at the expence of Europe, and the Roman world was not to be impoverished for the attainment of Oriental luxuries;—certainly not, if the sword could retain as easily as it acquires; but the wealth acquired by rapine must of necessity revert again into the channels of commerce; and commerce, whether it tends to the East or to the West, will impoverish every nation which has no native industry to replace its demands. Rationally speaking, all commerce consists in the exchange of superfluities; and luxuries are as easily introduced by dealing with nations nearer home, as with those at a distance. There is as little reason for declaiming against the Alexandrians who purchased pepper in India with the gold of Egypt, as against the Athenians, who exchanged the silver of Laureum for the salt of Sicily or Crete.

[1] Of pepper Pliny says, Usum ejus adeo placuisse mirum est . . . . . sola placere amaritudine et hanc in Indos peti; quis illa primus experiri cibis voluit, aut cui in appetenda aviditate esurie non fuit satis . . . et tamen pondere emitur ut aurum vel argentum. Lib. xii. c. 14. Hard.

Pliny complains that the Roman world was exhausted by a drain of four hundred thousand pounds[2] a-year, required for the purchase of luxuries, equally expensive as superfluous: what would he have said of the expenditure of our single island, consisting of two millions, for the purchase of tea only in China, without comprehending any other of our investments in the East? And yet this, and all the other luxuries we import, do not impoverish us; because we export on the one hand as we receive on the other; and, so far as we are the principal carriers between the Eastern and the Western world, we stand in the same situation as those ancient nations held, which were the medium between India and the Roman empire, but with an hundred times more trade, more industry and capital.

[2] The exact sum is H. S. quingenties, lib. vi. c. 23. nearly 403,645 *l.* sterling, quæ apud nos centuplicato veneunt, 40,364,500 *l.*; and again, lib. xii. c. 18. the balance against Rome for the produce of India, the Sêres, and Arabia, millies centena millia sestertium, 800,000 *l.* tanto nobis deliciæ & fœminæ constant.

But in the English East India Company, the receipt on sales, for the year ending March 1st, 1802, was 9,749,287 *l.* 17*s.* 8*d.*

Average revenue for 1799, 1780, 1781:

£. 6,436,807	Bengal.
3,540,268	Madras.
286,457	Bombay.
6,985	Bencoolen.
£. 10,270,517	

In 1802, 12,163,510 *l.*

Out of this immense revenue, so large was the establishment and the interest on debts, that there remained only 34,974 *l.* for investments, and large quantities of bullion were still sent from England to purchase cargoes, both in India and China. See Annual Asiatick Register, 1803, pp. 19. 35. 165. 89. 37. The total remainder to the Company, exclusive of payments, was 168,759 *l.*; bullion exported, 655,058 *l.*: and yet small, however, as the gains of the Company may appear, the exertion of industry at home, and abroad, and on the seas, is all gain to the nation, besides the profits on exportation, and the supply of manufactories.

On the commencement of this trade in England, the investments were 100,000 *l.*; the sale, 500,000 *l.*; imports consumed in England, 120,000 *l.*; profit to the nation by exports, 380,000 *l.* Purchas, ii. p. 738.

At this day, the investments from India and China, at prime cost, ought to be four millions annually. Mr. Dundas's Letter to the Court of Directors. Asiatick Annual Register, 1801.

As Providence has varied the temperature of different climates, so has it given to man a predilection for such things as are not the produce[3] of his native soil. The wildest tribes of America admit traders into their country, and allow them to pass through it with security; the Scythians[4] likewise, according to the earliest testimony of history, suffered the merchants of the Euxine to penetrate farther on the east and north, than we can trace their progress by the light of modern information.

In civilized countries, this appetite increases in proportion to our knowledge, and the opportunity of procuring the variety which we covet. The indulgences of the palate are among the first stimulants of this emotion; and second to these is all that can delight the eye, or the mind, by novelty, beauty, variety, intrinsic or imaginary value. Excess of indulgence, avidity of possessing, profusion in acquiring, and wantonness in using, this variety of foreign articles, are both vicious and luxurious; but where to fix the limit between the use and the abuse, is a question more difficult to determine than we are aware of. Pliny condemns, above measure, the vanity of purchasing pearls and precious stones for the ornament of the Roman women; while he extols the works of art in sculpture, painting, and engraving, with all the enthusiasm of an admirer. But if every thing is luxurious that is not necessary to our existence, the ornamenting of a house is certainly not more useful or more rational than the decoration of a woman. And if the

[3] Tanta mortalibus suarum rerum satietas est, et alienarum aviditas. Pliny, xii. c. 19.

[4] See the Introduction to the fourth book of Heródotus, as a proof of the courage, industry, and abilities, of the Greek merchants; and their commerce on the Danube, the Don, and the Palus Mæotis, illustrated by the commentary of Rennell, with great extent of learning, and much accuracy of investigation.

works of art are a specimen of human abilities, pearls, diamonds, and precious metals, are the gift of the Creator: the things themselves are indifferent; the temperate[5] use of them embellishes life, and it is only the abuse of them which becomes avarice, prodigality, or folly.

The activity produced by the interchange of superfluities, is the glory of commerce, and the happiness of man; but if its merits were to be fixed by the standard of utility alone, very narrow would be the limits within which the defence of it, by its warmest advocates, must be confined. Use we can discover none in the burning of tin foil before an idol in China; and yet this practice of a nation at one extremity of the world gives bread to thousands at the other, supports the mariner during a voyage of eleven thousand miles, and procures for Britain, by means of a native metal, what she must otherwise have purchased by an imported one.

Moral and philosophical reasoning, however, upon this question, has had little weight in determining the general practice and habits of mankind. The prevailing taste implanted in our nature has made the pepper of Malabar, and the cinnamon of Ceylon, articles of request, from the earliest ages to the present hour; the finer spices of the Moluccas grew equally into favour, in proportion as they became known: and the more modern demand for the tea of China, and the sugar of the East or West Indies, will never cease, but with the impossibility of procuring either of those articles, by the destruction of all intercourse between the several nations of the world.

[5] The poet understood this better than the philosopher, when he said, Nullus argento color est, nisi *temperato* splendeat usu.

It has been shewn in the preceding pages, how the precious commodities of the East were procured, from the earliest periods that history can reach; and no revolutions of empire, either in the ancient or modern world, have ever been able to stop all the means of communication at once: the channels obstructed in one direction, have been opened in another. Tyranny, avarice, and extortion, have defeated their own ends; the monopoly of one country, as it grew intolerable, was transferred to others that were less oppressive; fluctuating generally between the Red Sea, and the Gulph of Persia; and driven sometimes to the North, by the exactions common to both. Such was the fate also of the last monopoly between Egypt and Venice, which, by its enormity, drove the Portuguese to the discovery of the communication by sea; and this channel once opened, can never be closed; the whole world are partakers in the benefit; and Britain has the pre-eminence, only because she has the greatest industry, the largest capital, and the superiority of naval power.

It is a political consideration, awful to contemplate, and difficult to discuss, but still necessary to keep constantly in view, when we reflect how deeply all the interests of our country are concerned in the continuance of the pre-eminence we at present enjoy. Our possessions in India are almost become a part of our existence as a nation: to abandon them is impossible; to maintain them—a perpetual struggle with the native powers, and the powers of Europe to support them. It requires all the vigilance of government, and all the vigour of the controuling power, to take care that the natives should not be discontented under our empire; and that the nations of

Europe should not be outraged by our approach to monopoly. These considerations, however, are totally distinct from the commerce itself, and totally foreign to the object of the present work: I touch them only as they arise, and return with pleasure to the humbler office of a commentator on the Periplûs.

II. COURSE FROM OMAN IN ARABIA, UP THE GULPH OF PERSIA, OR, TO KARMANIA.

We have now our choice of two courses; one up the Gulph of Persia to Bahrein and Oboleh, and the other across the open sea from Arabia to Kármania; where we arrive, after a passage of six days, at the port of O'mana. This port manifestly takes its name from the province of Oman in Arabia, and was doubtless a colony of Arabs, established on the coast opposite to their own, for the purpose of approaching nearer to Scindi and India, or as an intermediate port on their voyage outward, and homeward bound. Whether the merchant, whose journal we are examining, ever went up the Gulph, or touched at the port of O'mana, is highly problematical. If he was there, he has left us but slender particulars of the place; but there are some circumstances which induce a persuasion, that he passed from Arabia, either to the Indus or Barugáza, at a single stretch; for, in the first place, he has fixed O'mana in Persis, which must of necessity be either in Karmania or Gadrosia; and, added to this, his account of Oraia, in the latter province, is too obscure to prove any intimate knowledge of the country.

III. OMANA IN GADROSIA.

O'MANA we recover a trace of in the Kombana[6], or Nommana, of Ptolemy, in the province of Gadrosia[7], and in the bay he calls Paragon, to the eastward of Karpela[8], or Cape Bombareek. I have proved, in the Voyage of Nearchus, and in the former part of this work, that the Arabs had visited this coast previous to all the navigation of the Greeks; but this O'mana is not mentioned by Nearchus, and was therefore a colony established between his time and the date of the Periplûs. Its immediate representative cannot be now ascertained; but its relative situation may be assigned from Ptolemy, between the River[9] Iskim and Mucksa; so that it must be in Gadrôsia, and not many leagues east from Cape Jask.

There is a regular intercourse between Barugáza and this port, which extends also to Oboleh, at the head of the Persian Gulph. The imports consist of

Χαλκοῦ, - - - -	Brass.
Ξύλων Σαγαλίνων[10], - -	Sandal Wood.
Δοκῶν, - - - -	Wood squared; perhaps Δοκῶν Σανδαλίνων.

[6] Kombana, in the Greek copies; Nommana, in the Latin.

[7] Pliny makes it a city of Karmania: Oppidum O'manæ quod priores celebrem portum Carmaniæ fecere. Lib. vi. 28. Ptolemy does the same; but Nearchus commences Karmánia only at Dagasíra.

[8] Ptolemy sometimes writes this Karpela, which, I think, signifies the Pierced Mountain, such as Bombareek is. The Latin text is Karpella.

[9] That is, the Sarus and Dagasíra.

[10] Σαγγαλίνων, easily corrupted from Σανδαλίνων.

Κεράτων, - - - -	Horn.
Φαλάγγων [11] σησαμίνων, - - } Φαλάγγων Ἐβενίνων, - - }	Ebony in round sticks.

Except ebony and sandal wood, there is nothing appropriate in this cargo.

But it is added, that a particular species of vessels called Madarátè were built here for the Arabians, the planking of which was sewed together without nails, like those already described on the coast of Africa. Vessels of this kind, called Trankies, and Dows, are still in use; and they were formerly built in Africa or Gadrôsia, we may conclude, because Arabia furnishes few materials for the construction of ships.

The only import from Kanè was Frankincense; while both [12] from Oboleh and O'mana great quantities of Pearl were exported, but of an inferior sort, to Arabia and Barugáza; and besides this,

Πορφύρα, - - - -	Purple.
Ἱματισμὸς ἐντόπιος, - -	Cloth for the natives.
Οἶνος, - - - -	Wine.
Φοῖνιξ πολὺς, - - -	Dates, in large quantity.
Χρυσὸς, - - - -	Gold.
Σώματα, - - - -	Slaves.

It is very remarkable that no part of the produce of India is among the exports from this mart, though it is noticed as the

[11] Σησαμίνων is evidently a corrupt reading. Wood of some sort is meant, but sesamum is a herb. Salmasius tried to explain it, but left it undetermined. Σησαμίνα ξύλα are, however, mentioned by Cosmas.

[12] Ἀπὸ ἑκατέρων τῶν ἐμπορίων, from *either port*, which I apply to Oboleh and Omana, because they were before joined εἰς ἀμφότερα ταῦτα ἐμπόρια.

centre of commerce between India and Arabia: but at Máketa, which is in the province of Oman, either near or at Moçandon, Nearchus mentions cinnamon as carried from thence into Assyria; that is, it was an article of trade between this part of Arabia and Terêdon. Was this cinnamon obtained by the Arabians on the coast of Africa, where the Greeks found it? or was it the Oriental cinnamon from Ceylon, procured at Barugáza, or any other port in India? Cinnamon, from the first mention of it, ever came through Arabia into the Mediterranean; but Máketa[13] is the place farthest east at which I have found it mentioned; and this is the only passage in any author which I have yet discovered, previous to the Scholiast of Diony'sius, which would induce me to believe that the Arabians procured it from India.

After leaving the district of O'mana, the country[14] which succeeds belongs to another government; and there is a bay which is called the Bay of the Terabdi, formed by the coast trending inwards, in the middle of their territory.

IV. COURSE TO THE INDUS.

This Bay of the Terabdi answers to the Paragôn of Ptolemy, although there is in reality no bay on the coast. No extent is given to that of the Periplûs; but the Paragôn of Ptolemy

[13] Μάκιτα· ἔνθεν τὰ κινάμωμά τε καὶ ἄλλα τοιωτότροπα ἐς Ἀσσυρίους ἀγινέεσθαι. Indica. Gronov. ed. p. 347. I could hardly have thought that any passage in the Indica could have escaped my observation, but my attention was first attracted to this by Schmeider.

[14] Μετὰ δὲ τὴν Ομανιτικὴν χώραν ὁμόιως, ἣ παρ' ὐδὸν παράκειται [χώρα] βασιλείας ἑτέρας, καὶ κόλπος τῶν Τεράβδων λεγόμενος, ὃς κατὰ μέσον εἰς τὸν κόλπον παρανατέινει. Χωρα is either omitted or understood; and is, I believe, the nominative to παρανατέινει: but there is some corruption of the text, or something not easily understood.

extends from Karpela to Alámbateir, or Guadel. Doubtless this is an error arising out of the form of the coast upon approaching the Gulph of Persia; and if we suppose the ancient course of the passage from Arabia to Karmania to have been made across, without approaching the Straits, the apprehension of such a bay is natural. This is the passage indicated by the Periplûs, six days in extent; and may perhaps have misled the author, as well as others, who followed the same course.

In or near this bay, we are informed that there is a river which admits vessels, and a small port at the mouth of it called Oraia. The capital of the district is inland, at the distance of seven days journey, where the king resides. The country produces plenty of corn, wine, rice, and dates; but on the coast nothing except bdellium [15].

These circumstances happen to coincide with an account given to Lieut. Porter, when he was at Chewabad [16], on this coast; for a coast without produce he experienced, and the natives told him of a city seven days inland, large and walled: if therefore we knew where to fix the limits of our author's bay of the Terabdi, we should have something to direct us to a position. The river seems like the Tanka Banca, or White River, of the charts; while Oraia bears a resemblance to the Orîtæ of Nearchus; but to these it is hardly related, as the journal certainly intimates a great extent of the coast between Oraia and the Indus; while the Orîtæ of Nearchus are within fifty leagues of that river. We find no Oraia in Ptolemy; and if we are still in Gadrôsia, there is no place seven days inland which would answer to the capital noticed by our author, but the

[15] A gum. See Plin. xii. 9.

[16] Churbar. Lieut. Porter's Memoir, p. 8. in Mr. Dalrymple's Collection.

Phoregh, or Poora, of Arrian. On the whole of this indeed, as we have so few data to guide us, it is safer to suspend our judgment than to decide.

On the coast which follows, and which may be supposed to be the tract between Guadel and the Indus, the description accords much better with the reality[17]; for we are told, that[18] there is a vast sweep of the shore round the indenture of the bays, which have an inclination to the East; and, after passing these, a low tract of country towards the sea, called Scythia, lies on the north of the course, and which extends to the river Sinthus.

These bays are evidently meant for those that are formed by the Capes Possem, Arraba, and Monze; and the bay immediately preceding Monze has a large sweep, to which, with the assistance of imagination, we may give a direction to the East, as its inmost curve is somewhat to the east of Cape Monze. It is added, that during the course from Monze to the Indus, the land is low, and lies to the north of the vessel that is passing to the East. This tract is now called Scindi; and the Scythia of the Periplûs, wherever it occurs, is the actual Scindi[19] of the Oriental and modern geographers. Why the

[17] This description answers much better than that of Ptolemy, who has one line of coast from Alambateir, or Guadel, to the head of the Bay of Kutch.

[18] Μετὰ δὲ ταύτην τὴν χώραν, ἤδη τῆς ἠπείρου διὰ τὸ βάθος τῶν Κόλπων ἐκ τῆς ἀνατολῆς, ὑπερκερώσης, ἐνδέχεται παραθαλάσσια μέρη τῆς Σκυθίας, παρ' αὐτὸν κείμενα τὸν βορέαν. This passage, ill constructed as it is, I trust I have rendered faithfully: ὑπερκερώσης, I imagine, expresses *encircling to a vast extent*; applied to an army, it means, out-*flanking the whole*: and ἐκ τῆς ἀνατολῆς may be said of a bay, the head of which is to the *east*, and the opening to the west. But if we read ἠπείρου ὑπερκερώσες ἐκ τῆς ἀνατολῆς, the sense will not be very different, but the range of the coast more difficult to comprehend.

[19] The distinction in Al Edrissi and the Oriental geographers, is Scind and Hind; that is, Scindi and Hindostan. Scindi comprehends the country on both sides the Indus; and the Indus itself is written Scind or Sind, with an S, which is preserved in the Sinthus of the Periplûs—in the Sindi and Sindocanda

author writes Scythia, and why Ptolemy finds an Indo-Scythia in this country, has already been conjectured in the Voyage of Nearchus; where it was observed, on the authority of the Ayeen Acbari, that the country is divided between the Hendians and Sethians. I am myself persuaded that this distinction is original; and that it is the cause of the error which has been adopted by Ptolemy, and other ancient geographers: but if this opinion is rejected, I should then say, that Scythia is a corruption of Scynthia, and that Scynthia is as precisely Scindi, as Sinthus is the Indus.

V. SCINDI, MINNAGARA, BARBARIKE.

I SHALL collect the several particulars relating to Scindi, which lie dispersed in other parts of the Journal, to this point; for it is natural to conclude, that from the time of Alexander, and the publication of the Voyage of Nearchus, the Greeks had always considered Pátala as the Port to which they were to direct their views, in order to obtain the precious commodities of the East. I have every where allowed that, while the mass of the trade was confined between Egypt and Sabêa, single ships, or individual merchants, might have reached India from the ports of the Red Sea. It is natural also to suppose, that

of Ptolemy. The Indus acquires another name while it continues a single stream; for between Moultan and Tatta, it is called Mehran Mekran, and hence Kutch Mekran, (the Chesmakoran of Marco Polo,) the country on the coast west of the Mehran; and from Kutch Rennell derives Gadrôsia. There is likewise another Oriental distinction, between Hind and Sin; in which Hind means Hindostan, and Sin, or Chin, Cochin China: Chin is also written Cheen; and Ma-Cheen, Great Cheen, means the country we now call China.—I ought not to dismiss this note without observing, that the Mehran of Ebn Haukal is the Chin-ab, or Akéfines: he is, in this, at variance with other Oriental writers; but his authority stands high.

the subjects of the Seleúcidæ were directed by the same inducements, while the Syrian Monarchy was in its vigour,—while it possessed Susiana, Persis, Karmánia, and the whole eastern side of the Gulph of Persia, and before it was weakened by the revolt of Parthia, Bactria, and the country at the sources of the Indus. The celebrated embassies likewise of the Syrian monarchs to Sandrocottus and Alitróchades, the sovereigns of Hindostan, probably embraced objects of commerce as well as empire; for those who found their way to the Ganges, could not be unacquainted with the profits to be derived from the commerce of the Indus.

The first[20] ship that coasted round the peninsula of Arabia from the Red Sea, or that retraced the steps of Nearchus back again from the Gulph of Persia, would naturally direct its course to Pátala and the Indus. Here it was known from history that the productions of the East were to be obtained; and here the trade, which passed in the earliest ages between all the countries at the sources of the Indus and the coast of Malabar, must always have fixed its centre. As the Greeks and Romans increased their knowledge, and finally became acquainted with the monsoon, they made their passage to India direct; but the voyage to the Indus was not yet abandoned in the age of the Periplûs, nor probably for several ages later. Pátala our merchant does not mention, but there were evidently two marts of importance still on this river: one, towards its issue, called Barbárikè; and another, somewhere in or near the

[20] Large ships *from* the Indus, Patala, Persis, and Karmania, came to Arabia as early as the time of Agathárchides, and most probably many ages prior, before there was any history to report the fact. I suppose these vessels to have been chiefly navigated by Arabians, because we can prove the settlement of that people on the coast of India from the time that history commences. See Periplûs supra, p. 36.

Island of Behker, higher up, named Minnágara, which corresponded with the Sogdi, or Musikánus, of the Macedonians, and which has been replaced either by Mansoura, or by the Loheri of modern Scindi, or any one of the capitals occupied by different invaders in the various revolutions of this country.

Minnagar[21], or Minnágara, perhaps the Binágara of Ptolemy, is described as the capital of the country, and the residence of a sovereign, whose[22] power extended in that age as far as Barugáza, or Guzerat. The government was in the hands of a tribe of Parthians[23], divided into two parties; each party[24], as it prevailed, chose a king out of its own body, and drove out the king of the opposite faction. This sovereign, however, must have been of consequence, or the trade of his country very lucrative to the merchant, as appears by the presents necessary to ensure his protection. These were,

[21] Minnagar is the fortress or city of Min, like Bisnagar, Tattanagar, &c.

[22] Maghmood the Ghaznavide, coming down the Indus, made his first inroads into Guzerat; and there seems to be a general connection between this province and Scindi, for the language is the same from Surat to Tatta, as we learn from Paolino, p. 262.

[23] Βασιλεύεται δὲ ὑπὸ Πάρθων, συνεχῶς ἀλλήλοις ἐκδιωκόντων. I should have been glad to have interpreted this passage as relating to the Parthian empire, which was then in its vigour, and might have extended itself eastward to the Indus; and, by applying ἀλλήλοις to Hindoos and Parthians, the expulsion of each, alternately, from Minnagar, would have resembled the fate of Candahar in these latter ages. But it would then have been written ὑπὸ τῶν Πάρθων, *the Parthians, the Parthian empire;* and Πάρθων ἀλλήλοις ἐκδιωκόντων must be, *Parthians driving out Parthians.*

[24] If the governing power were Parthians, the distance is very great for them to arrive at the Indus; may we not, by the assistance of imagination, suppose them to have been Aghwans, whose inroads into India have been frequent in all ages. That the government was not Hindoo is manifest; and any tribe from the West might be confounded with Parthians. If we suppose them to be Aghwans, this is a primary conquest of that nation, extending from the Indus to Guzerat, very similar to the invasions of Maghmood the Ghaznavide, and the present Abdollees or Durannees. The Belootches, who have infested this country from the time of Alexander to the present hour, are a tribe of Aghwans: but the whole of this is suggested as a mere conjecture.

Βαρύτιμα ἀργυρώματα, - -	Plate of very great value.
Μυσικὰ[25], - - - -	Musical Instruments.
Παρθένοι εὐειδεῖς πρὸς παλλακίαν,	Handsome Girls for the Haram.
Οἶνος διάφορος, - - -	The best Wine.
Ἱματισμὸς ἁπλῆς πολυτελής, -	Plain Cloth, of high price.
Μύρον ἔξοχον, - - -	The finest Perfumes, or perfumed Unguents.

These articles are all expensive, and the best of their kind. The profits upon the trade must therefore have been great; but if Pliny's account be true, that every pound laid out in India produced an hundred at Rome, greater exactions than these might easily have been supported.

The precise situation of Minnágara it is not easy to determine; but if it be the Minhavareh of Al Biruni[26], inserted in De la Rochette's Map, I conclude it is also the Manhaberè of Al Edrissi. Al Biruni[27] was long resident in this country, and consequently his authority is great; and it is to be presumed that De la Rochette follows him as a guide, in placing Minhavareh on the Indus, between the Island of the Behker and the Delta: Al Edrissi places his Manhaberè at two stations, or sixty miles, from Dabil; and Dabil, he adds, is three stations, or ninety miles, from the mouth of the Indus; that is, it is at the head of the Delta, and Manhaberè sixty miles higher. But he adds, that it is towards the west, which causes some confu-

[25] Μυσικὰ in Greece would have a different sense; but I follow Hudson; I think he is correct, considering the country.

[26] So called from the place of his residence, Al Birun, between Dabul and Mansura.—Abulfeda in Melch. Thevenot, vol. i. p. 9.

[27] Al Biruni was not a native of Scindi, as is sometimes supposed, but lived many years in India, and wrote a geography of the country. See Herbelot in voce.

sion, unless he means by this that it is in the Island of Behker, which he extends likewise to the west. But if Al Biruni and Al Edrissi can be reconciled, a Minhavareh, sixty miles above the Delta, agrees perfectly with the Minnágara of the Periplûs, and sufficiently with the Binnágara of Ptolemy; but not with *his* Minnágara, for that is in Guzerat, and he has another in the Bay of Bengal. D'Anville[28] supposes Minnágara to be the same as Mansoura, and Dabil to be at the mouth of the Indus, instead of being at the head of the Delta, where Al Edrissi places it; but we approach so near a conclusion by means of the two Oriental geographers, that I think the position is correct. The journal says, that the ships lay at Barbarikè, which was a port on the middle branch of the Indus, near the sea, and facing a small island; that Minnagar was beyond it inland; and that the whole cargo was carried up to that metropolis by the river. The representative to supply the place of such a capital would be the modern Loheri, at the southern termination of the Isle of Behker, which, a century ago, was a place of considerable commerce, and gave name to the two principal branches of the Indus, east and west, as they divide to embrace the Delta: the eastern is styled Bundar-Loheri, and the western, Loheri-Bundar[29].

One circumstance most remarkable is, that the port of Barbarikè is placed on the middle channel of the seven; and the other six are said to be too shallow, or too marshy, to be navigable. This is contrary to the report of Nearchus, and to our

[28] Antiq. de l'Inde, p. 34.

[29] Bundar Lori, the Eastern Channel, is called Nulla Sunkra in the treaty of Nadir Shah. See Nearchus, p. 175.

modern accounts; for Alexander navigated the two extreme[30] channels, east and west; and they were both navigable within these fifty years. Whether the government of Minnagar cleared and opened the centre one, can only be conjectured; ships did not go up it, and what water was required for the boats that carried up their lading, depends on the nature of the vessels which were employed. The Ritchel River, and that which issues at Scindi Bar, may either of them have been navigable in former times, or in different ages, according to the interest or situation of the different governments which may have prevailed. Rennell[31] still speaks of the Ritchel River as the largest; and without calculating whether it is precisely the central issue of the seven, here Barbarikè might be placed, if other circumstances should be found to correspond. It is some proof of the fact, that Ptolemy has placed his Barbari in the Delta, convenient for the third and fourth channel; but his Barbari does not answer to the Barbárikè of the Periplûs; it is above his Patala, while the Barbárikè of the Periplûs is at the mouth of the channel, and close to the sea. It ought likewise to be observed, that this term is not the native name of a port, but a Greek epithet[32], implying, the Barbaric Port, the Barbaric Country, derived, if the conjecture may be allowed,

[30] The western channel, which conducted to Lori-Bundar and Tatta, was the only one frequented by the English. This is now either impracticable, or rendered unsafe for strangers by the government; for Tippoo Sultan's ambassadors to the Abdollee Shah did not go up the Indus, but landed at Caranchy or Crotchey. See his Letters and Orders, in the Asiatick Ann. Register.

[31] Memoir, last ed. p. 180.

[32] Ἐμπορίου Βαρβαρικόν, Χώρα Βαρβαρική. It is a most extraordinary circumstance, which I am informed of by Mr. A. Hamilton, that Barbara has precisely the same meaning in Sanskreet, as it has in Greek, Latin, and English; all manifestly deducible from Egypt. A term of reproach synonymous with *savage*.

from the merchants finding here those articles which they had formerly purchased at Mosyllon, on the original Berber coast of Africa, where there is a Barbora to this day, and from whence many of the Oriental articles [33] in the market of Alexandria were called Barbarine and Barbarick.

The articles imported at Barbarikè are,

Ἱματισμὸς ἁπλῆς ἱκανὸς, -	Clothing, plain, and in considerable quantity.
Ἱματισμὸς νόθος ἐ πολὺς, -	Clothing, mixed.
Πολύμιτα [34], - - -	Cloth, Cottons very fine, or larger in the warp than the woof.

[33] I submit the following conjecture to the natural historians, without any assertion of its truth, or sufficient means of ascertaining it :— Rhubarb is written Rha *Barbarum* and Rha *Ponticum;* and as the best rhubarb always came out of Eastern Tartary, the first course by which it would reach Greece would be by the Wolga, the Caspian, and the Euxine. Now Rha is the native name of the Wolga; and Rha Ponticum would be the drug that came by the Rha, and Pontus, into Greece. But another conveyance of this drug would be out of Tartary to Cabul, and from Cabul down the Indus to Scindi, and to this port of Barbari, or Barbarikè. If then the name of the drug Rha was already received in Europe, would not the Rha procured in Scindi be called the Rha Barbarum?—I have not found this drug in Pliny, but suspect it to be his Rhacoma, xxvii. 105. very dubiously described; and I know that Rha Ponticum, and Rha Barbarum, convey now ideas not consonant to this explication; but still it may be the true one, originally. (See Isbrandt Isles, Nerginskoi.) The ground for the adoption of this opinion is derived from Salmasius. Bayer observes, that Rha signifies a river in the language of the natives. Hist. Bact. p. 163. from Scaliger, Doct. Temporum. That Rha the plant, derived its name from Rha the river, we have certain information in Ammianus Marcellinus: Huic, Rha vicinus est amnis in cujus superciliis *ejusdem nominis*, gignitur radix proficiens ad usus multiplices medelarum. Am. Mar. p. 390: and, because this root was brought out of the Euxine, he confounds the Rha with the Don, and supposes it near the Palus Mœotis. The rhubarb brought into India in modern times, came by the caravan which passed between Cabul and Cashgar, three months' journey from a mart called Yar Chaun, but ultimately from China. See Finch in Purchas, vol. ii. p. 434.

[34] Vestis Polymitos. Vestis filis versicoloribus contexta. But dubious.

Χρυσόλιθον, - - -	Topazes.
Κοράλλιον [35], - - -	Coral.
Στύραξ, - - - -	Storax.
Λίβανος, - - - -	Frankincense.
Ὑαλᾶ σκεύη, - - -	Glass vessels.
Αργυρώματα, - - -	Plate.
Χρῆμα, - - - -	Specie.
Οἶνος ὃ πολύς, - - -	Wine.

The Exports are,

Κόστος, - - - -	Costus. A spice.
Βδέλλα, - - - -	Bdellium. A gum.
Λύκιον, - - - -	Yellow dye.
Νάρδος, - - - -	Spikenard.
Λίθος καλλαϊνὸς, - - -	Emeralds, or green stones.
Σάπφειρος, - - - -	Sapphires.
Σηρικὰ [36] δέρματα, - -	Furs from China.
Ὀθόνιον, - - - -	Cottons.
Νῆμα Σηρικὸν, - - -	Silk Thread.
Ἰνδικὸν μέλαν, - - -	Indigo, or perhaps Indian ink?

Such are the different articles of export and import; and the author observes, that in order to reach this port in the proper season, the ships should leave the harbour of Berenikè in Epiphi, or July; adding, that the passage down the Red Sea is difficult at so early a period, but that a favourable wind

[35] At Caligut they took gold and silver alone, or else *coral*, when the Portuguese came there first. Cada Mosto, p. 58. Grynæus.

[36] This is very dubious, and occurs no where else; perhaps it may mean leather dyed or stained.

(that is, the monsoon) is more easily obtained after you have passed the straits, and the voyage more expeditious [37]. This is in harmony with the account of Pliny, who informs us, that the passage down the gulph took up thirty days; a long time for a passage short of five hundred miles, and which proves, not only the difficulty of the navigation, but the unskilfulness of the navigators. Upon approaching the mouths of the Indus, the sea is white; and the sign of land before it is seen, is a multitude of snakes, called Graai, floating on the surface. This circumstance, which seemed fabulous to the ancients, and some of the moderns, is now known to be a fact that takes place down the whole coast of Malabar, as well as on the approach to the Indus; it is imputed to the rains of the monsoon washing down these animals [38] out of the rivers.

From the whole of the particulars collected at the Indus, there is every reason to believe that the writer of the Periplûs was here in person: the minute circumstances recorded form a strong contrast with the slight notice of the Gulph of Persia and the Coast of Gadrôsia; and the more circumstantial detail respecting Guzerat and Cambay, which we are now approaching, is so very remarkable, that the description could hardly have occurred, unless it were derived from information on the spot.

[37] Δυσπλόος μὲν, ἐπιφορώτατος δὲ . . . . καὶ συντομώτερος ὁ πλοῦς. Ἐπίφορος is particularly applied to winds: ventus secundus. Ἐκείνων, in this passage, I have omitted, and cannot render.

[38] Paolino.

VI. CUTCH, GUZERAT, BARUGAZA.

THE first place we are directed to on leaving the Indus, is the Bay of Cutch or Kartsch, the Kanthi[39] of Ptolemy, the Eírinon of the Periplûs: it is said to be unexplored[40]; a circumstance appropriate to it at the present hour; and to have two divisions, the greater and the less, both shoal, with violent and continual eddies extending far out from the shore; so that vessels are often aground before they see land, or are hurried away by the eddies and lost. The shore begins to curve as soon as you leave the Indus[41]; first towards the east, next in a southerly direction, and, finally, back again to the west; till it reaches the promontory Barákes, which shuts in seven islands with its projection. These seven islands are marked in Dalrymple's chart, and this cape represents, with exactness, the Jaigat point of Guzerat, and the islands east of it, which are at this day the retreat of a piratical tribe, visited by the English[42] within these few years[43].

[39] Cantha is one of the names of Crisna, as *Husband* or *Lord*. There are still great remains of Hindoo superstition in this part of India: a pagoda in Kutsen, another at Jaigat, and a third at Sumnaut—all still conspicuous; and Sumnaut and Jaigat still visited in pilgrimage. Mr. A. Hamilton.

[40] Ἀθεώρητος; but an English officer, taken prisoner by the pirates, was carried up it, according to Rennell. The pirates should be those of Goomtie, just to the east of Jaigat.

[41] Ἀπὸ τοῦ ὄρμου, the last station is Barbarikè. The text seems to give the name of Barákes to the coast as well as the cape. D'Anville finds here a tract called Barseti, the Barasit of Al Biruni, p. 83.

[42] See an attack upon the pirates of Jygat by Captain Vashon, Asiat. An. Reg. 1803, p. 183. who burnt their vessels, but was repulsed from the fort. P. 97.

They destroyed one brig, and thirty vessels. The fort is called Batè, on an island, Somia Artara.

[43] In 1799. See Indian Reg. 1800, Chronicle, p. 3. The district is called Goomtee: the pirates are said to have been driven from Kutsch, between the Indus and the head of the gulph, and to have settled on the opposite shore of Guzerat, since called Little Kutsch. They are the Sanganians of our early navigators, the Sangadæ of Nearchus.

MAP of SCINDI GUZERAT and GULPH of CAMBAY for the PERIPLUS

MINNAGARA

SINTHUS FL.

SKYNTHIA

INDIA

SKYTHIA

INDIA

EIBUS C. Monze

Lori Bundar

Tatta

RHABÁRIKÈ PORTS

Bundar Lori or Nulla Sunkra or Suchor

Booge booge Kutch

SURASTRÊNÈ

EIRINON Kanthus Ptol.

Kutch Kartsch

BARÁKÈS PROM.

LITTUS

Jaggat

Goomtee

Pirates

Little Kutch

LÁRIKE

PTOLEMY of Guzerat Arab Gujjera Hindoo

Cambay

MAJIS FL. Mahi Myhi R.r

BARUGAZA Barroach

LAMNAIUS FL.

KAMMONI vicus OOPARA

Taptee R.r

Gropnaut P.t which fixes the Herone & Kammoni of the Periplus

Swally

SINUS BARYGAZENUS

HERONE ?

HERONE brina ?

ASTRAKAMPRA

TRÁPERI

Papika Diu Head

Baiones Inf.a Diu

St. Johns Head

Semulla of Ptol.y ?

25°

24°

23°

22°

21°

20°

19°

N.B. This Map is drawn from the best modern Authorities & not accommodated to the Geography of the Periplus.

The names in CAPITAL letters are in the Periplus or Ptolemy

N.B. Minnagara is too near the Delta. Oopara & Semulla are dubious ? but if Oopara is the Supara of Ptolemy, and Orrotha of Cosmas it may be Surat

Published May 1st 1805, according to Act of Parliament by W. Vincent.

J. Walker sculp.

If a vessel approaches this point, her only chance to escape, is an immediate alteration of her course; for if she is once well within it, it is certain destruction. The sea rolls in here, a large and heavy swell, with great violence, forming eddies and whirlpools in every direction. The soundings likewise vary from deep to shoal, or rocky, without warning; so that if you attempt to anchor, the cables are cut or rubbed by the foulness of the bottom. But the sign of approaching this bay, is another species of serpents, floating on the water, larger, and of a black colour; while those that are met with at Barugáza, and lower down, are green, with a golden hue, and of a smaller size.

From Barákès, and the Bay of Eírinon, the next in succession is the Bay of Barugáza, which terminates [south-west] on the boundary of Aríakè[44], the territory of Mámbarus, who is sovereign also of all India[45]. Inland, on the north, the district of Barugáza joins to Scindi, and is subject to the Parthians of Minnagar; and the sea-coast, from Scindi towards Guzerat, is called Surastrênè. It produces abundance of corn, rice, oil of sesamum, ghee, and cotton for ordinary manufacture; and the cottons of Minnagar are carried to Barugáza for exportation. The natives are black, and men of large stature, and the herds

[44] Ἡ πρὸς τῆς Αριακῆς χώρας τῆς Μαμβάρου βασιλείας ἀρχή, καὶ τῆς ὅλης Ινδικῆς ἄσα. The beginning of Aríakè, marks the distinction; for Barugáza was subject to Minnágara. Αριακῆς for Αραβικῆς, is the undoubted correction of Stuckius. Surastrênè; Mr. Hamilton interprets it Sri-rastra, the *Lord of Prosperity*. Jaggat, *the World*.

[45] *All India* is a large expression; but it cannot comprehend more than the northern part of the peninsula of India, in opposition to Scindi and Guzerat, in that age, under the Parthians. Such a king as the Balahara of Al Edrissi (p. 62.) would correspond sufficiently; for Balahara signifies *King of Kings*, according to his interpretation; but Mr. A. Hamilton says it implies, the *Overthrower of Armies*.

of cattle in the country are numerous. Surastrênè [46] must therefore be the Kutsch of our modern charts, the capital of which is Boogebooge; a tract wholly inhospitable, and now never visited; so that we have no opportunity of knowing [47] whether it answers to the account of the Periplûs or not.

The passage from Barbarikè to Barugáza is [not made along shore by the Bay of Eírinon and Barákes, but] strait across to the headland of Papíka [48], which lies opposite to the harbour of Barugáza, and in the neighbourhood of Astra Kampra and Trápera. This cape forms the western point of the Bay of Barugáza, at the extremity of which lies the Island of Baiônès [49]; and from this point the coast runs northerly till it reaches the head of the gulph; there it receives the river [50] Mais [and then returns again south to Barugáza itself, and proceeds, in the same direction, to the main coast of the peninsula.] It is added, that the passage from Scynthia to Baiônès is three thousand stadia, which agrees sufficiently with the actual distance of about three hundred miles.

Among all these particulars, there is not a single circumstance which does not accord [51] with the actual nature of the

[46] Surastrênè is not so absolutely confined in the text to Kutsch, that it may not extend to the coast of Guzerat also; but in allotting it to Kutsch only, we unite the account in the Periplûs with the geography of Ptolemy; and the text itself is so corrupt that we are utterly at a loss; for it says, the inland part of Scynthia touches on Iberia. Iberia is certainly a false reading, but what ought to be substituted for it is dubious: Hudson, or Stuckius, read Σαβειρία, from Ptolemy; and Ptolemy has Παταλήνη, καὶ ἡ ὑπερκείμενη αὐτῆς Σαβειρία, p. 172.

[47] Orme says, it furnishes a good breed of horses, which implies pasture for other cattle also. Hist. Fragments, notes, p. 107.

[48] D'Anville finds here a Soto Papera, for Asto Papika; but upon what authority he does not mention. Antiq. de l'Inde, p. 83.

[49] Baiônès is Diu; this tract is not passed without notice by Marco Polo, who adds, that in his time, all the trade here was in the hands of Arabs.

[50] Ἐν δὲ τοῖς ἐσωτάτοις τόποις μέγιστος ποταμὸς ὁ λεγόμενος Μάϊς.

[51] On peut dire ainsi, que ce qu'on acquiert de notions par le Périple, est satisfaisant et positif. D'Anville, Antiq. de l'Inde, p. 86.

voyage at the present day, from Scindi Bar to Diu Head; for Baiônès[52] is Diu[53]: and from Diu, the coast runs N.E. to the head of the Gulph of Cambay, where we find the River Mahi, as the representative of Mais. From Mahi the direction of the shore is south to Baroache, the Barugáza[54] of the journal on the Nerbudda, which the Periplûs calls the Lamnaius, and Ptolemy the Namádus[55], still written Narmada in some of the Hindoo books. The other part of the account, which at first seems to intimate that the bay is thirty miles across, will perhaps bear a more favourable construction, which I submit to the judgment of the reader: [" Upon arriving] at this[56] gulph, " those who are bound to Barugáza [keep clear of the land on " either side] and pass up the open channel for thirty miles, " leaving Baiônès on the left, till it is scarcely visible in the " horizon, [their course is] then east to the very mouth of the " river that leads to Barugáza."

The passage into this gulph is narrow, and difficult of access when you approach it from the sea, lest you should be carried away to the right hand or the left. The left side is the better;

[52] I conjecture that Diu is the Avi Caman of Al Edrissi, because he reckons one day and a half's sail from Cambay to Avi Caman, and two from Avi Caman to the Indus. They are courses far too long for an Indian ship, but the central point seems relative. He speaks magnificently of the trade of Cambay in his time; and extensive it continued, till the greater proximity of Surat to the open sea attracted the trade to that port.

[53] Diu is *Dive, the* Isle. Diu Head is Papika, the cape immediately west of Diu.

[54] Barugáza signifies the *Water of Wealth*, from Bari, *water*, and Gaza, *wealth, riches, treasure*, or treasury; the same in Sanskreet as in Persic. Mr. A. Hamilton.

[55] Asiatick Researches. Is it not Nahr-Bhudda? or Nahr-Mahadeo? The Soane, its kindred stream, is called Soane-Budda.

[56] [Κατὰ] Τοῦτον τὸν Κόλπον, τὸ πέλαγος ὡς ταδίων τριακοσίων οἱ πλέοντες εἰς Βαρύγαζαν διαπερῶνται· ἐξ εὐωνύμων ἀκροφανῆ καταλιπόντες τὴν νῆσον, καὶ εἰς αὐτὴν ἀνατολήν, ἐπ' αὐτὸ τὸ στόμα τοῦ ποταμοῦ, Βαρυγάζων. Κατὰ must be understood either with τὸν κόλπον, or τὸ πέλαγος: I prefer the first, as usual in the journal. Τὸ πέλαγος I render *clear channel*, as *open sea*, in comparison of a course along either shore; ἀκροφανῆ is, scarcely appearing, scarcely visible; διαπερῶνται need not be taken in the strict sense of *crossing*, but may signify *passing through the sea*, for 30 miles up the channel.

for on the right there lies a stripe of shoal, rough and broken, called Herônè, near the village of Kammôni [57]; and this shoal of Herônè, notwithstanding the shifting to which sands are liable, is not undiscoverable at the present day, or at least a representative for it, which will sufficiently elucidate the account in the journal. The charts and maps are full of shoals; De la Rochette has one extending from Swally to below Daman, and others without it; and a particular one off Groapnought Point, which seems to be the Jamteir Shoal of Skinner, corresponding with the situation required: all of them are long, narrow stripes, like the Fillet [ταινία] of the Periplûs, caused apparently by the rapidity of the tide, which throws up the sand, but will not permit it to accumulate in breadth. On the left, opposite to Kammôni, near the promontory of Asta Kampra, lies the cape called Pápika [58]: here it is difficult to anchor, both on account of the current, and because the cables are cut by the foulness of the bottom. But even when the passage into the gulph is secured, the mouth of the Barugáza River is not easy to hit; for the coast is low, and there are no certain marks to be seen: neither, if it is discovered, is it easy to enter, from the shoals [59] which are at the mouth. For this reason pilots are appointed by government, with attendants in large boats, called Trappaga and Kotumba; these vessels advance as far as Surastrênè, or Kutsch, and wait there to pilot

[57] Kammôni is sufficiently marked here on the side of the Gulph of Cambay, opposite to Diu, to shew that it cannot be far from the position of Surat, or at least must be south of Barugáza; and so Ptolemy places Kamanes in his most distorted map of this coast; and yet Major Rennell says, Cambay appears to be the Camanes of Ptolemy. Memoir, last edit. p. 210.

[58] Pápika, *criminal, guilty*, barbarous. Mr. A. Hamilton.

[59] It was very late that I saw Skinner's Chart, by favour of Mr. Arrowsmith. His Memoir I have not seen; but I am persuaded, it would explain many particulars here mentioned.

the trade up to Barugáza. Their first service, at the entrance of the gulph, is to bring round the ship's head, and keep her clear of the shoals: this they do by means of the many hands they have on board, and by taking the vessel in tow from station [60] to station, which stations are all known and marked; they move with the beginning of the tide, and anchor as soon as it is spent at certain berths that are called Basons [61]; and these basons still retain water after the tide is out, all the way to Barugáza. The town itself lies thirty miles up the river; a circumstance which directs us to Baroache, without a possibility of mistake.

The difficulty of navigating this bay affords a sufficient reason why Barugáza should be more flourishing than Cambay, and Surat preferable to Barugáza or Baroache; and yet Cambay was a great place of trade when Tavernier was in India. Mr. Hamilton adds, that the people of Cambay were formerly heterodox, or Bhuddists; and that Aríakè, which corresponds with Kemkem, or Concan, is the Country of *Believers*, probably in contrast to the inhabitants of Cambay. How wonderfully does this accord with the rise and success of Sevagee, and the Mahrattas, the restorers of Braminism in India, and the conquerors of the Mahomedan powers? The native superstition would naturally survive in the mountainous regions of the peninsula, while the Mahomedans overran the plains of Hin-

[60] Cesar Frederick mentions the bore here, and on the coast of Pegu; he calls it the Macareo, and his expression is peculiar: "In "these tides must be lost no jot of time, for "if you arrive not at the *stagions* before the "tide be spent, you must turn back from "whence you came; for there is no staying "at any place but at these *stagions*." Hackluyt, ii. 234.

[61] Κυθρῖνοι, literally, kettles; from κύθρα, obsolete; χυτρῖνοι, Hesych. Salm. 83.

dostan; and if Aríakè does signify the Country of Believers, it is a proof that this part of the peninsula was, in the earliest ages, celebrated for its attachment to Braminism. The Mahratta chiefs are many of them Bramins; but when in power, we find nothing of that meek spirit of the Hindoos so much vaunted in Europe: they have dethroned their sovereigns; they are the most cruel ravagers and invaders; equally greedy of desolation as plunder; they have destroyed much, and restore nothing: in short, they have made it a question, whether the whole people were not happier under the government of the Mahomedans, than their own. The house of Timour was a mild dynasty; and although Aurengzebe was a tyrant, a persecutor, and a hypocrite; Acbar was the father of his country. But to return:

The circumstance of the tides is not peculiar to this place, though they are more violent here than elsewhere; for almost all the rivers of India are large, and have both the flux and reflux of extraordinary strength, conforming with the moon, new and full, as well as for three days after each, and falling off again in the intermediate space; but at Barugáza this violence is more remarkable, so that without warning you see the bottom laid bare, and the sides next the coast, where vessels were sailing but just before, left dry as it were in an instant; again, upon the access of the flood-tide, the whole body of the sea is driven in with such violence, that the stream is impelled upwards for a great number of miles, with a force that is irresistible. This makes the navigation very unsafe for those that are unacquainted with the gulph, or enter it for the first time. No anchors are a security; for when the vehemence of the tide

commences, there is no intermission, no retreat: large vessels caught in it are hurried away by the impetuosity[62] of the current, and thrown on their sides, or wrecked upon the shoals; while the smaller ones are completely overset[63]. Many also that have taken refuge in the creeks, unless they have fortunately changed[64] their place in due time, (which it is very difficult to do, on account of the instantaneous fall of the water,) upon the return of the tide are filled with the very first head of the flood, and sunk. But all these circumstances united concur more especially, if the new[65] moon falls in conjunction with the night tide; for then, if you have been prepared to enter upon the first of the flood, and when the sea appeared perfectly calm, you shall hear, in a moment, a rushing sound like the tumult of battle, and the water driving forward with the utmost impetuosity, covers the whole of the bare shoals in an instant.

It will immediately appear, that this description relates to that sort of tide which is called the Bore[66], and is common to many places in Europe as well as India. On the coast of Egypt, or in the Red Sea, the author could have seen nothing that resembled it, and he dwells upon it, therefore, with more

[62] Τῇ Ινδίᾳ is a corruption for which nothing occurs. Perhaps προληφθεντα τῇ Βίᾳ?

[63] So the Oriental Navigator says, "Near "Dagom the tide runs so rapidly, that if the "vessel should take the ground she must "overset immediately, and in all probability every "soul on board perish, which often happens "through the neglect or obstinacy of the "pilots." P. 207. Another part, near Gogo, is described as very dangerous, and environed with rocks and shoals; and he notices that the tide runs six miles an hour. P. 206.

[64] Ὅτ' ἂν μὴ διεξίσῃ. Dodwell reads διεξίσῃ, rowed off, rowed through; which I follow.

[65] Συμμηνίας, the moon in conjunction with the tide. But συμμηνίας does not occur in the lexicons: may it not be νεμηνίας? Hudson renders it interluniis, which has little to do with high tides.

[66] See the description of the Bore, called Macareo, in Pegu, by Cæsar Frederick. He mentions stations in that river like these; and adds, that the Macareo in Cambay is nothing equal to that of Pegu. Hackluyt, ii. p. 234.

minuteness than a modern observer would employ; but from this very cause it is that we have a picture which cannot deceive us, and a conviction that the author relates what he had himself experienced.

We come next to the enumeration of the countries with which Barugáza is connected, and its relative situation with regard to the provinces that surround it. Among these, on the north-west, lie the Aratrii, Rachoosi[67], and Tantháragi, names with which we are totally unacquainted, as they do not occur in any other author; but that they lie towards the north-west, between Guzerat and Multan, is manifest from the succeeding district of Proklaïs, which comprizes the city of Booképhalos, for that we know to be in the Panjeab. He then adds, that beyond Proklaïs, still farther to the north-west, lies the province of Bactria, governed by its own[68] kings. Here we may observe, that the country between Guzerat and the Indus is to this day less known than any other part of India: it is a sandy desert, affording refuge to tribes of Rajpouts, Hendouans, and Ashambetis, called Jams, who are all without fixed habitations, and plunderers like the Arabs. These may correspond[69] with the hordes mentioned by the author; but from Minnagar upwards, to the Panjeab and to Bactria, we can follow him with

[67] The Rachoosi are the giants of India, as I learn from Mr. A. Hamilton, of Edinbro'.

[68] Bayer's catalogue of Bactrian kings ends 134 years before our êra, and therefore he has no king for the age of the Periplûs. For ὑπὸ βασιλέα ἔσαν ἰδίον τόπον, he proposes to read ὑπὸ βασιλεῦσιν ἰδίοις ὄντων. And some correction is wanting; for ἔσαν neither agrees with ἔθνος or τόπον. May not the merchant of Periplûs have heard of a Bactrian dynasty, and assigned it to his own age after it was extinct? Bayer imputes the age of the Periplûs to Aurelius Antoninus. Hist. Bact. p. 98.

[69] Hudson wishes to convert Aratrii into Arii, and Rakhoosi into Arachosii. So far as Aria and Arachosia are connected with Bactria, there is reason in this; but if there is any order observed in arranging these tribes, they ascend with the Indus to Moultan and the Panje-ab, and thence with a north-westerly direction to Bactria.

more precision; for in these parts, he says, there still remain memorials [70] of Alexander and his conquests on the Indus; such as altars, the entrenchments of his camps, and very large wells. The last particular seems evidently to refer to the wells which Alexander opened in his three days march to the East from the eastern branch of the Indus: they were on the route to Guzerat; and the route between the Indus and that province is kept open, at this day, only by wells of this description in the desert. But we are told afterwards, that Alexander marched eastward from these countries to the Ganges [71], neglecting Limúrikè, and the whole peninsula on the south. This only proves that our author was a much better merchant than an historian; but he redeems his error by the preservation of a circumstance which fell under his own observation; which is, that coins with the Greek inscriptions of Menander and Apollódotus, who reigned in this country after Alexander, were still current in Barugáza.

VII. KINGDOM OF BACTRIA, TAGARA, PLITHANA, OZENE, DEKAN.

This Apollódotus is hard to discover, even by the scrutinizing accuracy of the learned Bayer; but Menander he has introduced into the catalogue of his Bactrian kings, and with a most peculiar distinction, that he had extended his sovereignty down the Indus, and over the Delta of the Patalênè [72]. This extra-

[70] Ἱερὰ ἀρχαῖα. Sacella, Hudson.

[71] It will be readily allowed, that an author who could fall into this error, might be mistaken in regard to the kings of Bactria.

[72] See Strabo, p. 471. Bayer, Hist. Bactrian. p. 80.

ordinary influence of the Greeks, in these distant regions, is no more to be wondered at, than the erection of kingdoms by the descendants of officers of Ginghiz Khan, Timour, or Nadir Shah: the heads of a conquering army are all as ready to divide an empire, as the successors of Alexander; and the officers of these successors, as eager to revolt from their principals, as the principals from the family of the conqueror; thus rose the kingdom of Bactria, by the revolt of Theódotus from the monarch of Syria, which maintained itself for near an hundred and twenty years, and consisted at one time of a thousand cities: similar to this, perhaps, was the sovereignty of Apollódotus, who seems to have had some provinces towards the sources of the Indus, which, in the obscurity of the Syrian history, cannot now be ascertained, and the memorial of which is preserved almost exclusively in the Periplûs.

That the coins[73] of these princes should pass current at Barugáza, is no more uncommon[74] than that the Venetian sequin[75], and Imperial dollar, should be at this day current in Arabia, or that the Spanish piastre should pass in every port of India and the East; that is, round the world from Mexico to Manila, and in some instances, perhaps, from Manila to Mexico again. A fact still more worthy of notice is not to be

[73] Paolino informs us, that P. Pavoni, a missionary in Mysore, found a coin of Claudius in the river Caveri. P. 98.

Renaudot's Arab, p. 15. mentions a Thatarian drachm, which weighs half a dram more than the Arabian drachm. But this is not a foreign, but a domestic coin; it bears the die of the prince.

[74] Niebuhr says, vol. i. p. 137. that Greek, Persian, and Roman coins are still current in Curdistan; and Nicolas di Conti Ramusio, tom. ii. p. 286. mentions the Venetian ducat as current in India in 1430, that is almost 70 years before the Portuguese reached India.

[75] On the coast of Malabar, women appear at this day ornamented with sequins, coins of Portugal, and English guineas, by way of necklace. Moore's Narrative, p. 293.

omitted, as it is an observation appropriate to a merchant [76]; which is, that the denarius, either gold or silver, was exchanged with advantage against the specie of the country. This is in correspondence with the testimony of Cosmas, almost five hundred years later; who takes occasion, at Ceylon, to mention, that the Roman money was received, and trade carried on by means of it, to the utmost extremity of the world, no nation having a [standard of] coin pure enough to compare with the Roman. And it is a truth (as I learn from Clark on Coins), that the Byzantine standard was not only the purest, but most permanent, of any in the world.

Before we can proceed to the commerce of Barugáza, we have other relative situations to consider, as Ozênè on the East, and Plíthana, and Tágara, on the south-east. These Lieut. Wilford has concluded to be Ougein, Pultana, and Deoghir. There is every reason to adopt his conclusions; and if, after the several circumstances already enumerated, we have cause to think highly of the information of our author, we shall be disposed, after tracing these several connections, to allow that there is no specimen of ancient geography so completely satisfactory, or so consonant to truth, as the portion now under contemplation.

Towards the east of Barugáza lies Ozênè, which was formerly the capital of the country. What are we to understand by this, but that the Parthians, who were now masters of Minnagar, and possessed of Guzerat, had driven the native Hindoos out

[76] I do not wish to deprive either Bayer, or Robertson, or Maurice, of the honour of these observations, previous to the present publication; but they could not be omitted here, as forming part of my plan; and I had obtained my information previous to consulting any of their works. An author, in the legal phrase, *takes nothing* by such an assertion; he deserves nothing but what the reader pleases to allow him. See Bayer, Hist. Bact. p. 108.

of power, and seized upon the government of these provinces themselves? And what do we see in this, but the prototype of the Mahomedan usurpations, which have been too faithfully copied by European powers? and whose place the British occupy as masters of Surat, Baroache, and Cambay, at the present hour. When the Europeans first reached India, Surat was the principal seat of commerce on the north, as Calicut was on the south; and the merchants of Guzerat were the richest and most active traders in India. Surat is not more than forty or fifty miles from Baroache, and Baroache [77] is the Barugáza of the Periplûs. In the age of that work, the merchants of this country were not less vigorously engaged in their pursuits; they traded to Arabia for gums and incense, to the coast of Africa for gold, and probably to Malabar and Ceylon for pepper and cinnamon. If I could find any thing in history to countenance the idea of the Hindoos [78] being seamen [79] in any age, I should place them in this province. But as Barthema informs us, that in his time the Hindoos at Calicut [80] left all navigation to the

[77] Al Edrissi calls it Berug, and Beruts; the English now call it Broche. Strabo writes Bargosa. D'Anville, Geo. Anc. p. 88. But this is dubious; for the Bargoosi of the Periplûs are on the other side of the peninsula.

[78] Quello che bee vino non si receve per testimonio, ne quello che naviga per mare perche dicono che chi naviga per mare è desperato. Marco Polo, lib. iii. c. 20. p. 54.—This relates to the Hindoos of Coromandel.

[79] Sir William Jones has supposed, that, from Bottomry being mentioned in the laws of Menu, the Hindoos must have been navigators in the age of that work. Now, that ships of Hindoos went to sea, and that a proportionate interest for the hazard of the sea was to be paid on money borrowed, must be true; but it remains to be proved that the seamen were Hindoos. And his endeavour to prove that they used the sea in former ages, proves that it is contrary to their principles and practice in later times. It is only within these very few years that the English have been able to carry their sepoys by sea; and in doing this, there seems to have been employed money, discipline, and a variety of fictions to salve their conscience.

[80] In urbe Calechut qui Idola colunt [Hindoos] non sulcant maria, id munus Mahumetanis delegatur. Quorum numerus in ea civitate sola excedunt quindecim millia. Barthema apud Grynæum, p. 112. And in Orme's account of the fleets near Bombay, one party were Siddees, or Abyssinians, and the other

Mahomedans, so it should seem that the prohibitions of their religion had been uniform from all ages. Pliny speaks as strongly of the Arabs on the coast of Ceylon; and Arabs [81] there must have been at Barugáza for the same purpose, unless it should be discovered that there was some cast, of a degraded sort, that supplied their place. Fishermen there are, but they can cook and eat their food on shore; and even fishermen are an abomination in Malabar. Merchants, however, may grow rich at home, while other nations are their carriers [82]; and that the greatest trade of India was in that age fixed in Guzerat, is evident, not only from the enumeration of articles at this port, but from the general importance it bears in the mind of the author, and the circumstantial detail of all that is connected with it.

The connection with Ougein [83], and the mention that this place was once the seat of government, is in perfect conformity with modern information; for Ougein [84], as it is at present subject to Scindia, and the capital of his jaghire, so was it, from the earliest ages, the properest situation for a metropolis, as being in the centre of those tribes of Hindoos which have been less [85]

Arabs chiefly. Angria was a Hindoo, as well as Sevagee; but his fleets were full of Arabs, and so were those of his predecessors. See the attack made on an Indian ship called the President, in 1683. Orme, p. 171.—The Arabs ... the first navigators in the world for the Indian seas. Sir John Chardin, in Renaudot, p. 147.

[81] When the Portuguese came to India, the Arabians transacted all the trade of the East. Renaudot, p. 173.

[82] The Armenians, who are no navigators, freight ships in every port of India. Gentil. tom. ii. p. 196.

[83] See Hunter's journey from Agra to Ougein. India Annual Register, 1800, Miscel. p. 279.

[84] Written Ujjayini, Ujjein. D'Anville, India, p. 95. Ujjayini awinti, or avanti. Hunter.

[85] The revolt of Sevagee, the founder of the Marhatta power, was in the time of Aurungzebe, when the house of Timour was in its meridian splendor. These Hindoos of the

intermixed with foreigners, and less subject to invaders, than the other tribes of Hindostan. Its pre-eminence and importance are still farther proved by its having been, and still continuing, the first meridian[86] of the Hindoos, which appears from accurate English observations to be in long. 75° 51′ 0″[87] from Greenwich, and its latitude 23° 11′ 12″. The ruins of the ancient Ozênè are still discoverable, at a mile distance from Ougein; and coins and bricks are still dug up there, at the depth of fifteen feet or more. Pliny makes no direct mention of Ozênè, but incidentally only, as denoting a species of the spikenard; but Ptolemy calls it the capital of Tiástanus, and his royal residence; he places it on the Namádus, or Nerbudda, that is the river of[88] Barugáza; which river is said to rise out of the same lake as the Saone, which takes an eastern

Dékan had never been reduced; and though the Rana of Ougein, who was the principal of the Hindoos of Agimere, had been subdued by Acbar, the interior was so difficult of access, that there had always remained tribes in the mountains who were independent. Sevagee (or, as he is otherwise called, Bonsoola) first reduced the mountaineers of the Dekan into order, and formed them by discipline till he set the Mogul power at defiance: he plundered Surat repeatedly, spread his incursions on every side, and levied contributions to a vast amount. He died possessed of a sovereignty, which grew up during the decline of the empire under the successors of Aurungzebe, and has become the greatest Hindoo power since the first invasion of the Mahomedans.

[86] See Asiat. Researches, Lond. ed. v. p. 194. and India Register 1800, 292. Miscel. longitude determined by eleven observations of Jupiter's Satellites; latitude, by eight.—Another first meridian was at Lanca, or Ceylon. Paolino, p. 309.

[87] Jessing, or Jaya Sinha, soubadahr of Meliva, in 1693 constructed observatories at Ougein, Dehli, Benares, and Matra. Sir Rob. Barker describes the observatory at Ougein, and found the latitude to be 23° 10′ 24″, which the native observers made 23° 10′, seconds they do not notice; but it appears likewise that they had instruments and books from Europe. Mr. Hunter doubts the antiquity of Hindoo astronomy, and informs us, that when he was at Ougein, Jessing's observatory was turned into a foundery for cannon. Asiatic Researches, v. p. 196. Lond. ed.

[88] Major Rennell, in his first map, placed it on a stream that ran into the Nerbudda; in his corrected map, it is on a branch of the Sipareh, which joins the Chumbal, and falls into the Jumna.

direction; so that the course of the two rivers into the sea, east and west, turn what is called the peninsula of India into an island.

D'Anville[89] considers Ougein as the residence of Pôrus, who sent an embassy to Augustus. The rajah is called Rhana, and pretends to be descended from Pôrus, who was defeated by Alexander. Fabulous accounts of Alexander are as current in the East, as in Europe; and for the sake of proving the antiquity of his family, a prince might have the vanity to think it an honour that his ancestor was defeated and conquered. But Pôrus signifies a chief or sovereign: it may have been an appellative, as well as a proper name; and the sovereign of Agimere[90], if his influence extended over Guzerat in the age of Augustus, might have had commercial[91] transactions to regulate with the Roman empire.

From Ozênè every sort of commodity is brought down to Barugáza, which can contribute to the supply[92] of the country, and many articles for foreign trade[93], comprehending

Ὀνυχίνη λιθία, - - -	Onyx stones.
Μυῤῥίνη, - - - -	Porcelane.
Σινδόνες Ινδικαὶ, - - -	Fine muslins.

[89] Antiq. de l'Inde, p. 95.

[90] The Rana of Oudipoor in Agimere is the nominal head of the Rajpoots, that is in fact of all the true Hindoos; he confers a sort of investiture on all the ruling powers, in the same manner as the Caliph of Bagdat, who, though stripped of his dominions, conferred the Kelat on every Mahomedan usurper. Asiat. Annual Reg. 1803. Miscel. p. 43. from a Persian account. See infra, p. 374.

[91] This is upon the supposition, that the 120 ships which Strabo saw at Berenîkè actually reached India.

[92] Ἐνθηνία.

[93] Πρὸς ἡμετέραν ἐμποριάν, for *our* trade.

Σινδόνες Μολόχιναι, - -	Muslins of the colour of mallows.
Ἱκανὸν χυδαῖον ὀθόνιον, - -	A large quantity of ordinary cottons.

And many articles that only pass through Ozênè to the coast, from the country farther inland; as from the Panj-ab[94],

Νάρδος, - - - -	Spikenard, of different sorts.
Καταβερίνη[95], - -	
Πατροπαπίγη, - -	
Καβαλίτη, - - -	
Κόστος, - - - -	Kostus.
Βδέλλα, - - - -	Bdellium. A gum.

The Imports at Barugáza are

Οἶνος, - - - -	Wine.
Ἰταλικὸς προηγμένως, -	Italian wine, in preference to all other.
Λαοδικηνὸς, - - -	Laodicêan wine. Syrian.
Ἀραβικὸς, - - -	Arabian. *Query*, Palm, or Toddy?
Χαλκὸς, - - - -	Brass.
Κασσίτερος, - - - -	Tin.

[94] Περιπλάις.

[95] I imagine all these to be different species of Nard, taking their name from the places from which they come. And if a conjecture may be allowed, Καβαλίτη is from Kabul, a mart through which it might regularly pass out of Tartary, or Thibet, its proper soil. Al Edrissi uses the term *Myrobalanos Kabolinos*, for the Myrobalans of Kabul, p. 66.

Μόλυβδος, - - - -	Lead.
Κοράλλιον, - - - -	Coral.
Χρυσόλιθον, - - - -	Topazes.
Ἱματισμὸς, - - - -	Cloth.
ἁπλοῦς, - - -	plain.
νόθος παντοῖος, - -	mixed, of all sorts.
Πολύμιται ζῶναι πηχυαῖαι, -	Variegated or fine sashes, half a yard wide.
Στύραξ, - - - -	Storax.
Μελίλωτον, - - - -	Sweet lotus.
Ὕελος ἀργὴ, - - -	White glass.
Σανδαράκη, - - - -	Ore of Cinnabar.
Στῆμι, - - - -	Stibium for tinging the eyes.
Μύρον ὐ βαρύτιμον, - -	Ordinary perfumes, or unguents,
ὐδὲ πολὺ, - - -	and in no great quantity.

Besides specie, upon which there was a profit, and the presents that went up to the king at Minnagar, as mentioned before. It is not evident why these presents were not rather landed at Barbárikè, which was the direct port for Minnagar, than at Barugáza; but our author says, that the king of Minnagar[96] was sovereign of Barugáza also. Perhaps, by their being mentioned here, they went only to the viceroy or soubah of the province. The expression in the text is dubious[97]; but the context seems to imply, that from the country to which these presents went up, there came down in return, distinct from the exports of Barugáza,

[96] If Minnagar be identified with Minhabareh, the connection of this with Guzerat and with Nahr-waller, Nahr-wala, or Nahluar, is evident in Abilfeda. See Melch. Thevenot, tom. ii. citing Abilfeda, p. 22.

[97] Τῷ βασιλεῖ κατ' ἐκείνους τοὺς καιρούς. Had Guzerat revolted, and set up a king of its own, *at that time?*

Νάρδος, - - - -	Spikenard.
Κόστος, - - - -	Kostus.
Βδέλλα, - - - -	Bdellium.
Ἐλέφας, - - - -	Ivory.
Ὀνυχίνη λιθία, - - -	Onyx stone.
Σμύρνα, - - - -	Myrrh.
Λύκιον, - - - -	Box thorn.
Ὀθόνιον παντοῖον, - - -	Cottons of all sorts.
Σηρικὸν, - - - -	Silk.
Μολόχινον, - - - -	Mallow-coloured cotton.
Νῆμα, - - - -	Silk thread.
Πέπερι μακρὸν, - - -	Long pepper.

And other articles from the ports in the neighbourhood. Several of these are the same as those that were specified as procurable at Barugáza, and consequently we can see no reason for the recapitulation, except the different means of obtaining them from a different part of the country. Such, however, are the commodities in general derived from the North and from the East, and such was the importance of the commerce of this place in the time of Pliny. Zízeris and Muzíris, farther to the south, seem to have been the more particular object of the voyage by the monsoon, across the sea from Arabia to India direct; but in our author's age, though he mentions Muzíris, it is transiently, in comparison with Barugáza and Nelkunda: these seem to have been his grand marts. And for Barugáza, he says, the fleets left Egypt in the month of Epiphi, or July.

He still persists farther in the execution of the same design; for, after stating what was obtained from the Panje-ab and Ozênè, he proceeds next to the south, in order to shew what

was the connection between Barugáza and the Dekan. This is, if the boast may be allowed, the peculiar pre-eminence of the work: it belongs to this author alone, as far as I have discovered, to give the true direction of this western coast of the peninsula, and to state, in direct terms, its tendency to the south, while Ptolemy stretches out the whole angle to a straight line, and places the Gulph of Cambay almost in the same latitude as Cape Comorin.

But the declaration of the Periplûs is this:—From Barugáza, as the coast immediately adjoining ran up north [to the river Mais, or Mahi], it now stretches directly to the south; the country is therefore called Dakina-bades[98], because DAKHAN, in the language of the natives, signifies SOUTH. Of this country [which is called DAKHAN] that part which lies inland, east of Barugáza, comprizes a great space of wild and desert country, and large mountains, in which are found leopards, tigers, elephants, vast serpents, hyenas, and baboons[99] of various sorts. [But in the inhabited parts] there are also a great variety of different nations, and exceedingly populous, quite across the peninsula to the Ganges[100]. Besides this, in the territory of Dakhinabad there are two emporia, or marts, of more particular importance; for at the distance of twenty days south from Barugáza lies[101] Plíthana, and ten days east of Plíthana is found Tágara, which is the largest city in the country. The com-

[98] Dakin-abad, city of the South. Dakhina-wad, southern region. Bayer.—Dacshina. Paolino.

[99] Inter Simias, efferatior Cynocephalis natura, sicut Satyris. Pliny, lib. viii. c. 54. c. 80. Hardouin. See the authors he cites. Aristot. lib. ii. de Natura Anim. c. 13. Palmerius, &c.

[100] Τὰ μέχρι τῶν συνέγγυς, which is nonsense; and Hudson and Stuckius very properly read μέχρι τοῦ Γάγγεος.

[101] There is evidently an omission in the text; for two cities are in the context, and only one of these is named. It appears that a part of the sentence, and not the name only, is wanting.

modities from these two cities are brought down, through roads of great difficulty, by land-carriage, to Barugáza; that is, from Plíthana, a great quantity of onyx-stone [102]; and from Tágara, ordinary cottons [103] in abundance, and all sorts of muslins, with a variety of other native productions which are not specified.

It is manifest, that of these two cities, Deoghir is Tágara, and Plíthana is Pultaneh; that the difficult roads are the Ghauts [104]; and the mountains, that chain which runs parallel with the coast the whole length of the peninsula, from Guzerat to Cape Comorin. The country also between Guzerat and the Ganges does contain the deserts specified, not only in the vast tract called Berar, but in many other parts of the extensive territories occupied by the Mahrattas. The animals likewise are appropriate, and the whole is such a picture as no ancient geographer supplies in so distant a quarter of the world; so accurate, that it is hardly surpassed by Strabo, in his description of the countries of Europe.

Deoghir [105] was the seat of a Hindoo government [106] as late as

[102] Agates, onyxes, and other transparent or semi-transparent stones, are particularized by Captain Hamilton, as a conspicuous part of the commerce of Cambay.

[103] The cottons here called μολόχινα, Lieut. Wilford says, are those dyed of a whitish purple, like the mallow-flower. There is nothing more singular in this than in the *blue* Surats, which at this day have a constant sale on the opposite coast of Africa, in Abyssinia, and in the ports of the Red Sea. Paolino interprets μολόχινα, chintz: tele finissime dipinti et richamente. P. 95. Fine cottons are supposed to derive the name of muslins from Mosul, on the Tigris; a name which they had in common with gold tissue and silk, because these articles were either made or to be purchased there. See Marco Polo, lib. i. c. 6. tutti li panni d'oro & di seta che si chiamana Mossulini fi lavorano in Moxul. Notwithstanding this high authority, I am sometimes inclined to think, that Μολόχινα is the origin of Mosselins, or muslins; though I have nothing to build on but the proximity of sound, and conjecture.

[104] The Ghauts are literally the passes from the low country, over the mountains, into the upper region; but are generally used for the mountains themselves.

[105] Rennell has another Deogur upon the Tapti, p. 237. and Ptolemy has a Tiagura, as well as a Tágara. His Tiagura, indeed, is on the Nerbudda; but it is doubtless the Deogur, near Nagpoor. Rennell, Mem. p. 213.

[106] Marshat (in Sanscrit, Murat) is the ori-

1293, when it was taken by Feroze II. and is now a ruin near Elore, within four cosses of Aurungabad, on the River Godavery. It was the capital of the province of Doulatabad; and the centrical situation of these three cities, afforded a convenient position to the Patan emperors, as well as Aurungzebe [107], from whence they might propagate their conquests in the Dekhan. But the subterraneous excavations [108] at Elore [109], and the pagodas there, extending over a tract of two leagues at the present hour, imply an antiquity now inexplorable, and preserve the vestiges of a superstition coëval with the remotest êra of Braminism. These remains qualify the spot for the site of Tágara [110], as early as the account in the Periplûs: and it is manifest that the author speaks of it as a capital of a province, or a kingdom at that time existing, and the centre of the commerce from the interior.

Lieut. Wilford has a dissertation [111] on this city, inserted in

ginal name of Deoghir, near Aurungabad; the inhabitants of which are, therefore, called Mahrattas (in Sanscrit, Maharashtras), and the Mahratta language is proper to that territory. As. An. Reg. Miscel. p. 45. 1803.

It is the privilege of the Rajahs of Oudipoor to give a sanction to the accession of every other Rajah that succeeds to a Hindoo sovereignty, by sending him the Rashkah. Ibid.

Sahugee, father of Sevagee, was a native of Oudipoor, and became a Zemindar in the Pergunnah of Poonah. He served in the Mogul army, under Shah Jehan. Ibid. 46. This is from a Persian work, and seems consistent, if the derivation of Mahrattas be correct.

[107] Aurungzebe was usually at Amednagur. Orme.

[108] See the wonders of these ruins displayed in the magnificent and highly-curious work of Daniel, from the drawings of Wales. There is an apparent stamp of antiquity upon these excavations, superior to those of Elephanta, Mabalipooram, &c. for there are fewer figures distorted with a multiplicity of arms and heads, there is a grace almost Grecian in several of the deities; and throughout, much less of the grotesque barbarism and obscenity than is found in the more recent structures of their superstition. The wealth, the power, and the labour, requisite to form these excavations, equal, if not surpass, all that must have been employed in the edifices of Egypt.

[109] Elore has been visited by Thevenot and Anquetil du Perron.

[110] Deo-Ghur, the Hill of the Gods. A. Hamilton.

[111] As a commentator on the Periplûs, many thanks are due from me to Lieut. Wilford; and with the whole of his historical deductions

the first[113] volume of the Asiatick Researches, in which he makes the distances from Baroach agree with those of the Periplûs, by reckoning eleven miles as a day's journey for a loaded cart in that country; but twenty days south to Pultanah[113], and ten days east from Pultanah to Deoghir, is more than I can find by the scale of any map which has fallen under my inspection; neither do I find Pultanah mentioned in the maps of d'Anville, Rennell, or de la Rochette. Great allowances, however, are to be made for the winding of the roads, and the difficulties of the intervening ghauts; while the ruins of Elore, on the actual site of Deoghir[114], with the point of the compass south-east from Barugáza, give a probability to the whole which is irresistible.

It were to be wished that other Gentlemen, employed in the East, would apply their local knowledge to the removal of these obscurities, as effectually as this meritorious officer has done in the present instance. Observations on the spot, confirmed by evidences peculiar to the country, form the true ground of proof, on which alone those who collect and compare in the closet ought to depend. This evidence is appealed to by Lieut. Wilford; for the name of Tágara, written with the orthography of the Periplûs, occurs in a grant[115] of land found, engraven

I perfectly agree. But his translation of κατάγεται μεγίσαις ἀνοδίαις, is refined, rather than correct: goods *brought down* to Baroach, or *carried up* to Tagara, is a phrase as familiar in Greek as in English; and μεγίσαι ἀνοδίαι, without being a translation of Bala Ghauts, fully identifies the difficulties of the roads through the mountains; ἀνοδίαι never signifies *ascent*, as far as I can discover, but ἄνοδος only; and if it did, to bring carriages *down an ascent* must be a solecism.

[113] P. 369. Lond. ed.

[113] Lieut. Wilford reckons 217 miles from Baroach to Pultanah on the Godavery.

[114] D'Anville has placed Tágara at Satara, in the Mahratta country. Antiq. de l'Inde, p. 108.

[115] The date of this grant answers to the year 1018 of our era: it was communicated to the Asiatick Society by General Carnack, and has every evidence of authenticity. If the reader should refer to it, he will find, that in the conveyance of land the lawyers of all countries are equally liberal of words. See Asiat. Researches, vol. i. p. 357. Lond. ed.

upon copper, in the Isle of Salset, near Bombay; and the rajah of the inland capital, by this monument, seems to have been connected with the coast, as effectually as Tágara was connected with Baroach eighteen centuries ago.

If we should now describe the arc of a circle, from Minnagar on the Indus, through Ougein, to Dowlatabad on the Godavery, of which Baroach should be the centre, we might comprehend the extent of the intelligence acquired by the merchant of the Periplûs. But allowing that this was the knowledge of the age, and not of the individual only, where is this knowledge preserved, except in this brief narrative? which, with all the corruptions of its text, is still an inestimable treasure to all those who wish to compare the first dawning of our knowledge in the East with the meridian light which we now enjoy, by the intercourse and conquests of the Europeans. An arc of this sort comprehends near three degrees of a great circle; and if upon such a space, and at such a distance from the coast, we find nothing but what is confirmed by the actual appearance of the country at the present moment, great allowance is to be made for those parts of the work which are less perspicuous; for the author did certainly not visit every place which he mentions; and there are manifestly omissions in the text, as well as errors and corruptions.

VIII. ARIAKE OR CONCAN, THE PIRATE COAST, AKABA ROOS, OOPARA OR SUPARA, KALIENA OR BOMBAY, SEMULLA, MANDAGORRA, PALAIPATMAI, MELIZEIGARA, TOPARAN, TURANNOS-BOAS, SESEKREIENAI, AIGIDII, KAINEITAI, LEUKE.

That the author was at Barugáza, cannot well be doubted by any one that adverts to the variety and minuteness of his descriptions at that place. Whether he went farther down the coast to the south, or took his account from other voyagers, may not be so certain. D'Anville[116] supposes that he accompanies us to Cottonara, and then takes one bound to Comorin and Ceylon; but I wish to make no assertion either way. My own doubts arise from the impossibility of discovering[117] those characteristic features, which are so easily traced in the narratives of writers who have actually visited the country they describe. The coast we are now to follow, has few bold or prominent distinctions; many rivers, but none large or majestic; many ports, but fitted mostly for the reception of the vessels of the country alone; and only two capes worthy of notice, upon an extent of eight hundred and fifty miles.

Another method of inquiry is naturally suggested, by similarity of names; and of this I shall be as ready to avail myself as those who have preceded me in the attempt. Nothing, however, is more fallacious, if the situation be not as correspondent as the name; and names seem to have fluctuated more in India

[116] Antiq. de l'Inde, p. 112.

[117] The district of Nelkunda is an exception to this.

than in any other country that we know: a specimen we have just seen in Tágara, Elore, and Dowlatabad; all three appropriate to different ages, and all now concluded under Aurungabad[118]. The names also of Al Edrissi, in the middle century, differ as much from the ancient names of Ptolemy, Pliny, and the Periplûs, as they do from those of the cities and districts which are at present in existence. Mr. Orme, in the introduction to his illustrious history, has imputed this to the vanity of princes; and Tippoo Sultan confirmed this remark, by changing the name of almost every place in his dominions.

The great scope for conjecture, and the very few places which can be ascertained of all those which are enumerated upon the coast which we are now to investigate, is compensated, in some degree, by the appropriate description of the provinces or districts we are to visit. I agree perfectly with Major Rennell, in considering this as an object of much greater importance, than the placing of a town or a harbour on a map. And the fact is, that the different nature and properties of the districts are indelible; while the site of cities or fortresses has been changed, according to the prevailing interests of the day, or the caprice of conquerors.

The whole western face of the peninsula, from Cambay to Cape Comorin, is nearly equal to fifteen degrees of latitude. This extensive tract appears upon the map divided into six provinces, or districts, under the names of Cambay or Guzerat,

[118] Aurungabad takes its name from Aurungzebe, and seated here or at Amednagur, in a centrical situation. He carried on his inroads into Golconda, Visiapour, and the states of Sevajee; trusting his armies to his sons and his generals, and directing them all from this point. This bigot, hypocrite, and tyrant, is the primary cause of all the miseries that Hindostan has experienced for almost two centuries.

the Concan, the Dekhan, Canara, Malabar, and Travancore[119]. Correspondent to these, we have in the Periplûs the province of Barugáza, the Lárikè[120] of Ptolemy, equivalent to Guzerat; Aríakè[121] to Concan, or the Pirate Coast, between Bombay and Goa; Limúrikè to Canara, between Goa and Malabar; the Kingdom of Pandion, answering to the upper part of Malabar, including Calicut and Cochin; Paralia to Travancore, as far as Cape Comorin; and the Pearl Fishery, extending from Comorin to the Islands of Rami-ceram and Manar. The limits of these will appear distinctly in the prosecution of our inquiry; and if we fix the boundary of Lárikè at the Tapti, and include the modern Dekhan of the coast within the confines of Aríakè, our ancient geography will prove consistent with the modern division of the provinces. For, notwithstanding the fluctuations of power, or the change of masters, these are marked by characteristics that seem indelible. The only difference is, that the Periplûs has no specific district equivalent to the Dekhan, but uses that term, in its general acceptation, as it is employed at the present day, embracing the provinces of the peninsula in contradistinction to Hindostan.

The Periplûs seems to apply the name of Barugáza to the province as well as to the port; and this possibly, because at

[119] Travancore, though a kingdom of itself, is generally included in Malabar, as well as Calicut and Cochin.

[120] Ptolemy is as correct in this, as in most other names of places. Abilfeda calls it Al-Lar. See Abilfeda apud Melch. Thevenot, tom. ii. p. 22. Tanna est ultima urbium provinciæ Al-Lar. So that he makes Tana the limit between Guzerat and Concan. The province is very mercantile, and the people Hindoos.

[121] Αριακὴ, Λιμυρικὴ, Κοττονάρικὴ, are all adjectives with γῆ implied; but Aria, Limyra, or Cottonara, do not occur in the form of substantives throughout the work. I conclude that Papikè, the correspondent name to Diu Head, is an adjective likewise.

that time it was subject to Minnagar; but Ptolemy calls it Larikè, and makes it part of the kingdom of Ozênè, with the other towns or places on the River Namadus or Nerbudda; and as long as there was a regular Hindoo power at Ougein, that city seems to be the natural metropolis of the country. With equal propriety, the Tágara of Ptolemy and the Periplûs, is connected with the Pirate Coast, both comprehended in the province of Ariakè, and both subject to Baleokoorus, whose capital was at Hippokoora, supposed by D'Anville [122] to be the Balhara [123] of Al Edrissi [124]. His title was King of Kings, and he was connected with another prince or rajah at Baithana, called Siropolémius [125], whom Lieut. Wilford [126] makes the Salibaham of the Hindoos, and his metropolis, Pattán. I am not sufficiently informed, to confirm or invalidate these opinions; but I find that the Balahara [127] of Al Edrissi resided at Naherwalleh [128], the ancient capital of Guzerat, prior to Amedabad; and if so, Ptolemy would have placed Hippokoora [129] in Larikè, and not in Aríakè, where it now stands in his geography. But I am persuaded that both Ptolemy and the Periplûs agree in

[122] Antiq. de l'Inde, p. 93.

[123] Paolino places the Balahara in Concan (Kemkem), on the authority of Renaudot's Arabians. Balhara, he says, is Balia Raja, Great King; but if in Concan, he is certainly not the Balhara of Al Edrissi. He adds, "Se D'Anville avesse fatto il viaggio dell' "India, prima di scrivere la sua Antichita del "India, non avresse commesi tanti spropositi "nei suoi libri." P. 98. He treats none of us who write at home with greater civility. Hippokoora, the capital of Baleo-koorus in Ptolemy, is in Concan, or what in his map answers to Concan, and not to Guzerat.

[124] P. 62.

[125] Sri, or Shri, is an inferior title of respect, like our *Sir* or *Mr.* See inscription at Tanna. As. Researches, vol. i. p. 367. Lond. ed.

[126] Dissertation on Tágara, p. 373.

[127] See Bayer, Hist. Reg. Bact. p. 29. who cites several Oriental authorities, but determines nothing.

[128] Nahroara, Nahrwara, Nahrwallah.

[129] Hippokoora, compared with the relative situation of places round it, might lead us to something not very distant from Poonah, the present seat of the Mahratta government, were it not on a river that comes into the Western Sea. Poona is above the Ghauts, about 100 miles S.E. from Bombay; and there is no river, on this part of the coast, that comes from the other side of the Ghauts.

the general division and relation of Larikè and Arîakè, and differ only in the appellations they have adopted. The names of places, rivers, mountains, and provinces, in Ptolemy, are as astonishing as his errors in position, longitude, and latitude, are manifest. His positions, however, are for the most part relatively right, though they are essentially wrong; and the errors of his longitude, in which he is principally mistaken, must have arisen from his manner of acquiring information—by interrogating the merchants and mariners at Alexandria, whose reports were from memory, and not from journals. But it is evident, that many of these must have penetrated far inland, otherwise he could not have left us the great outline of truths which is still manifest in his works, and which makes us forgive all his particular errors, in consideration of the general and important information that we obtain.

VIII. I am now to enter upon the description of this coast, incidentally traced by Hardouin, Robertson, Rennell, Paolino, and many others; but where no one has regularly gone before me, through the whole extent, except d'Anville. His conclusions I shall be compelled to question, but it will not be done without diffidence on my part, and without due respect to his learning and abilities; for d'Anville is the first writer, properly speaking, who has taught us to investigate the geography of the ancients, by tracing the characters of different coasts and countries as they exist at present: to him we look up, as to a master in this branch of the science; and even where his errors are demonstrable, we cannot but respect the extent of his learning, experience, and penetration.

At the commencement of our inquiry, the first information we receive from the Periplûs is, that the extent of the coast

from Barugáza to Limúrikè is seven thousand stadia, or seven hundred miles; but as this would carry us, at one step, to Mount d'Illi [130]; it is rejected by Rennell, d'Anville, and I believe all the writers who have examined the subject. The commencement of Limúrikè, our author has placed at Naôora, Tundis, and Moozíris. And as it will hereafter appear that these places must be near the northern limit of Canara, and that therefore we have every reason to conclude Limúrikè has nearly the same limit as that province, we cannot take off less than two hundred from the seven hundred miles, to preserve the proportion of the coast. This is one reason, among others, which may induce a doubt, whether or not the writer of the Periplûs performed this part of the voyage himself.

The first places mentioned, upon leaving Barugáza, are

Akabároos [131], *Oópara*, and *Kallíena*.

[130] In consideration of this circumstance, and my general dependance on the measures of the Periplûs, I was originally disposed to consider Aríakè as comprehending the whole coast, from the Tapti to Mount d'Illi; and if the Province of Limúrikè were to commence at that cape, the islands off the coast of Limúrikè, that produce the tortoise-shell, according to the Periplûs, and which may be well assumed for the Lack Dives, correspond better with a Limúrikè south of d'Illi, than north. But the strong ground that Rennell has taken for assigning Nelkunda to Neli-ceram; the circumstances at that place according so essentially with the ancient account; the division between Limûrikè and the Kingdom of Pandion, that is, Canara and Malabar; added to the correspondence of the islands on the coast, made me prefer the arrangement which I have adopted. The detail of this will be explained at large as we proceed.

[131] It is not affectation, or a love of singularity, that induces me to assume the Greek kappa, rather than the c of the Latins, or the English diphthong oo, for the Greek ου; but a hope that the true sound, and true orthography, may direct the eye or the ear of modern travellers, or voyagers, to the discovery of ancient names. The distortion of European names by Oriental writers is astonishing to us; and our mode of expressing Oriental sounds, received by the ear, must be equally offensive to their perceptions. Ebn Haukal writes Sakaliah, Akrites, and Kibres, p. 53. which would certainly require some attention of the mind before a common reader would discover that they are Sicilia, Creta, and Cyprus.

In regard to Kallíena, all suffrages[132] are united to fix it in the neighbourhood of Bombay; for Bombay is upon an island, close to which, on the main, was an ancient city called Gallian. The ruins of Gallian still remain, and are noticed by Fryer[133] in 1675, as the most glorious ruins in the Dekhan the Mahomedans ever had to deplore. His account proves it to have been a city of the Hindoos, and its situation commanding Basseen, Salset, and Bombay, gives it a pre-eminence as a mart of commerce in all ages.

But if we have so much concurrent testimony for fixing Kallíena near Bombay, we have almost two hundred miles of coast on which we are to look for the other two places named; and if Oópara be the Soopara of Ptolemy, as is generally allowed, it must be a place[134] of some note[135]; for Subara is joined with the mention of Cambay, in the middle ages, by Al Edrissi. It is supposed, by d'Anville, to answer to the Sefareh el Hende[136] of the Oriental geographers, in contradistinction to Sefareh el Zinge on the coast of Africa, which is the Sofala of the Portuguese; and these two Sofalas, one in India, and the other in Zanguebar, are supposed to be in constant habits of mutual commerce and correspondence, by means of the alternate monsoons.

[132] Orme, Rennell, Robertson, d'Anville, &c. Cosmas has Caranja in the harbour of Bombay.

[133] Orme, Hist. Fragments, note 30.

[134] It was the see of a bishop, as early as the sixth century. Καὶ ἐν τῇ Καλλιάνα δὲ τῇ καλουμένῃ καὶ Επίσκοπος ἐστιν ἀπὸ Περσίδος χειροτονέμενος. Cosmas, Paolino 100. That is, from Mosul of Marco Polo. Lib. i. c. 6.

[135] Supurâh signifies a splendid city. A. Hamilton.

[136] Abilfeda apud Thevenot, tom. ii. p. 22. mentions these two places, and their connection.

An intercourse of this kind between Guzerat, and the coast of Africa, I have mentioned in the former part[137] of this work, which the Periplûs describes as previous to the voyages of the Greeks in the Indian Ocean, and totally unconnected with them; conducted by native merchants on both sides, or by Arabs, who were carriers for both. On this latter point there can hardly be a doubt, when we find that the vessels employed in this trade sometimes discharged part of their lading in Zanguebar, and proceeded afterwards to Arabia; and when we learn from the same work, that most of the settlers on that coast were Arabs, and several of the places subject to the different sheiks of Arabia, as they are at this day. These are the large vessels from India, which Agathárchides describes as early as the time of Philadelphus, found by the Greeks in the ports of Arabia; and from which they obtained all the commodities of the East before they went to India themselves. This commerce we may carry back to the ages long antecedent to history, and conclude, that as the monsoon must be known to the inhabitants of both coasts from the time they were inhabited, so must the communication have been opened from the earliest period in which mariners ventured to commit themselves to the ocean.

It is almost superfluous to add, that the Sefarch both of Africa and India has been converted into the Ophir of Solomon, as it has suited the hypothesis of different authors, to carry his fleets to the east or to the south; and fortunately, both opinions may be maintained or combated, without danger of controverting the authority of scripture.

[137] Pages 281, 282.

After all these various particulars, which are left to the discretion of the reader, there does appear something of importance in the circumstance of Sooppara continuing a place of note, from the age of Ptolemy and the Periplûs to the time of Cosmas and Al Edrissi [138]; and it seems not impossible to determine its situation, by observing that Ptolemy places it on the north of the first great river south of his Namadus, or Nerbudda: this river answers to the Tapti, and the place north of the Tapti must be Swalley, or some place near it; in the front of which lies the road of Surat. How d'Anville could carry this down to Sifferdam [139], seventy miles south of Bombay, when he unites in supposing Kallíena and Bombay to be the same, is inconceivable; but as he places his Sefareh el Hinde there also, the resemblance of a name has made him disregard the arrangement of his author: but if the author has any meaning, Soopara [140] must lie between Baroache and Bombay, and most probably in the vicinity of Surat. Surat itself is said to be a modern [141] city; but a mart in its neighbourhood must always have commanded a great access to the interior, as the Tapti extends upwards, from the sea, full four hundred miles, and communicates by its branches with a variety of districts which are rich and flourishing. It is this circumstance which has made Surat superior in commerce to Baroache, for these three last cen-

[138] By the repeated mention of Subara with Cambay in Al Edrissi, I had hoped to connect it with the Suppara of Ptolemy; but I think he means to place it north of Baroache, which he calls Beruh; if so, it will not answer our purpose. But I cannot always follow his wanderings.

[139] Antiq. de l'Inde, p. 104.

[140] Soopara is still noticed in the As. An. Reg. p. 99. 1803, which cannot be far from Bassein; a situation which might be reconciled to Al Edrissi's account, but not to Ptolemy's. It is something to find the name still on the coast; and if it signifies *a splendid city*, as Mr. Hamilton informs us, it might in different ages be applied to different places.

[141] Which is proved by Capt. Hamilton, in his Account of the East Indies, vol. i. p. 144.

turies, as being easier of approach; and whatever city supplied its place on the Tapti must have partaken of these advantages, and such apparently was the Soopara, or Oopara, of the ancients. It is very remarkable, that Rennell has an Oolpar[142] a little to the north-east of Swalley, in his corrected Map of India; but as he does not mention it in his Memoir, I cannot discover whether it is ancient or modern—a city or a village. I build little upon similarity of names; but as many gentlemen, now in England, have been resident at Surat, if any thing should have occurred to their observation, they will be gratified by the introduction of this name to their recollection.

For Akabaroos I can find no representative: it may be fixed any where between Baroache and Surat; but as there is a small stream called Kim, by Orme, in the intermediate space, it is here that it should be looked for, were there any thing to direct our inquiries. But this place was apparently seldom frequented, and therefore it is not to be expected that much information should be left us by a merchant of Alexandria.

To return to Kallíena, the last name of the three mentioned. I join most readily in opinion with those who have preceded me in the inquiry; and consider the tablet discovered at Tana[143] in Salset, as a most valuable monument[144] for connecting the government at Tágara with the district on the coast.

[142] Oolpar is noticed as one of the places surrendered to the English with Surat, by the Mahrattas, in 1802. As. An. Reg. 1803, p. 12. State Papers.

[143] Tana, and not Bombay, is noticed by Cesar Frederick, 1563, as a place of great trade; but Chaul was the principal mart on the coast at that time. Hackluyt, ii. p. 218.

[144] These tablets, containing a grant of land, have been mentioned before; and if the manner of writing Tagara be literal, the evidence is complete.

This circumstance has been mentioned before, and if Tágara be the genuine writing on the tablet, it establishes, past contradiction, its identity with Deoghir, and the connection of that capital with the coast. Tana is likewise noticed by Friar Odorick, the first missionary upon record in India; for the date of his visit is 1331. The work is not his own writing, but taken from his report, and among much that inclines to the marvellous, contains some extraordinary truths. He came from Ormus to Tana, which he describes as a place of considerable commerce in that age. He gives a rational account of the pepper trade on the coast of Minibar [Malabar], and of the Christians of St. Thomas at Meliapoor, on that of Mobar, [the Mahabar of Marco Polo, or Coromandel]. But I have introduced him to the notice of the reader, on account of his sailing on board a vessel which carried seven hundred people. This is a confirmation of the account we have of those large ships, from the time of Agathárchides down to the sixteenth century; the ships of Guzerat which traversed the Indian Ocean in all ages [145].

It is foreign to this work to enter into the present state of Bombay, under the power of the English; but as the first factory of our countrymen was established at Surat, it is interesting to observe how the acquisition of Bombay has enabled them to extend their influence over Surat, Baroache, and Cam-

[145] I dare not follow this Friar farther, for he goes to Ceylon, Pegu, Malacca, China, Cambalu, and Quinsay, and mentions cloves, nutmegs, sago, bamboos, rattans, &c. &c. Some things appear borrowed from Marco Polo, and yet his work, if genuine, was written before the publication of that traveller took place. He mentions Minorite Friars as missionaries in India and China; but all the latter part of his work has far less appearance of truth than Rubruquis or Carpin; and his return is not specified at all.

bay; to occupy the commerce of Guzerat, and to possess the power of dominion in those marts, where the Romans enjoyed only the privileges of merchants.

In the age of the Periplûs, Kallíena was little frequented: in the reign of a former sovereign, styled Sáragan, it had been an established port of commerce; but Sandánes [146], his successor, admitted none of the vessels that came from Egypt; and if any entered the harbour by accident, or stress of weather, he immediately put a guard on board, and compelled them to go to Barugáza. This circumstance, Lieut. Wilford observes, savours strongly of an improper conduct in the traders, or might arise from the jealousy of a native power. The Romans shewed their influence, by erecting a temple to Augustus at Muzíris; and if we suppose an attempt of this kind made at Kallíena, it bears a resemblance to the encroachment of Europeans on the natives, as well as the intrusions of the Arabs and Mahomedans. If we could have connected these governors, or rajahs, of the coast, with Mámbarus, the sovereign of Aríakè, or fixed the residence of Mámbarus at Tágara, Plíthana, or Hippocoora, our picture would be complete; but on these points the Periplûs is silent.

The ports or marts in succession [147] below Kallíena are

Semulla, *Mandágora*, *Palaipatmai*, *Melizéigara*, *Tóparon* of the *Buzantians*, *Turannos-boas*, the Islands *Sêsekréienai*, the Island of the *Aigidii*, the Island of the *Káinêitai* (in these

[146] Al Edrissi preserves the name of Sandan as a mart five stations, or 150 miles, below Sabara. The situation is consistent, but whether it has any relation to a rajah or sovereign is wholly dubious, though the names of places do confer a title, as Taxiles, the rajah of Taxila.

[147] Μετὰ δὲ Καλλίενον.

places are the Pirates); and, after these, *Leukè*, or the White Island.

How this enumeration can have misled those who have preceded me in the inquiry, I cannot say; but to my apprehension we have the Pirate Coast, between Bombay and Goa, as manifestly delineated as we could require, and to that district our attention must be confined. On the primary point, indeed, of a coast infested by pirates, there is little difference of opinion; Ptolemy and Pliny are both in harmony with the Periplûs, and modern writers are generally agreed; for pirates there have been in all ages, as they are here described, till the Severndroog of Angria was taken by the English in 1765. But when we have obtained the coast, why any one should travel out of it to find modern names correspondent to those of our author, is not easily reconciled to the canons of geography. All these names are given as what our seamen would call *country* ports, frequented [148] only by the natives; and whether we can find representatives for them or not, is of no great importance, if we can mark the limits of the provinces; to effect which, the modern divisions of the country may be of great assistance. Orme [149] has observed, that the Mahratta language is spoken from Bardez, or Goa, to the Tapti; and these very limits I would assign to the Aríakè of the Periplûs. It is well known, that the division of provinces often survives the revolutions of empire; the habits of the natives, and the boundaries of na-

[148] Μετὰ δὲ Καλλίενα, ἄλλα ἐμπόρια τοπικά. Rendered by Hudson, Post Callienam alia sunt emporia vernacula, quibus regionis incolæ tantum utuntur; and I conclude it is the true meaning, illustrated by καθ' ἃς τόπους, which immediately follows; and also by τοπικὰ πλοῖα. P. 34.

[149] Histor. Fragm. p. 57.

ture, are not always subject to the vicissitudes of conquest; and as the Tapti was the probable limit between the government of Minnagar and that of Mámbarus, on the north; so on the south, there is a natural boundary between Goa and Canara; where we are also to look for the termination of Aríakè, and the commencement of the Limúrikè of the Periplûs.

For the situation of the few correspondent places, which I shall propose for the consideration of the reader, if the proofs should not amount to conviction, I shall at least do no violence to my author, or his text: I leave every thing free for discussion, as I find it; and even if my deductions should be erroneous, they will affect my own arrangement only, and mislead no one who is disposed to prosecute farther inquiries on the subject.

D'Anville has transferred the four first names of the catalogue from Aríakè to Barugáza, or Guzerat, knowingly and designedly [150] rejecting the order of the journal, and placing Semulla at Sumnaut Pagoda, Mandagora at Mangherour, Palaipatmai at Patan, and Byzantian at Bisantagan; now, reckoning only from Bombay, this is a displacement of an hundred and fifty miles; while Fra Paolino, who corrects d'Anville, and contemns all writers who have not been in India, carries Mandagora to Mangalor in Canara, and Palaipatmai to Baleapatna near Tellicheri, and Kallíena to Calanapuri [151] near Mangaloor. There is only seven hundred miles difference in the disposal of

[150] Il ne faut point avoir égard à ce qu'on lit *ensuite* comme par forme de transition μετὰ δὲ. Antiq. de l'Inde, p. 101.

[151] P. 100. Upon the whole of this there is only one question to propose: Does not Paolino allow Aigidii to be the Angedives? p. 101.; and if he does, did he ever ask himself the question, whether those ports are placed to the north, or the south, of Aigidii, in the Periplûs?

these names respectively; and a work which can admit of this latitude of interpretation, is either not worthy of a comment, or the different commentators must have preferred their own conjectures to all the evidence of their author.

To a common inquirer, the language of the Periplûs is perfectly consistent; and if a resemblance of names has misled men of superior information, it ought to set others more especially on their guard to follow the arrangement of the work which they have undertaken to explain, and not to erect systems of their own, which can be supported only by a perversion of the text.

The Pirate Coast was not formerly, and is not now, so totally inhospitable as to exclude all intercourse: the Portuguese had settlements at Daman and Basseen, north of Bombay, as well as at Choul and Dabul, to the south; and it is a conjecture highly probable, that the Zizêrus of Pliny, and the Meli-Zeigara [152] of the Periplus, were at [153] Siddee-Zyghur [154], about an hundred and forty miles south of Bombay. Pliny [155]

[152] Zanghisara. Gemelli, 210.

[153] Major Rennell has a Sedashygur below Goa; it is written Sudash-gur in the Oriental Navigator, p. 220. It is the fort of Carwar, and totally distinct from Siddee-Zyghur near Rajapore, described in the Oriental Navigator, p. 215. This fort of Rennell's is situated on a high point of land, and being remarkably *white*, becomes very conspicuous at sea. If the point of land had been said to be *white* instead of the fort, I should have concluded that I had found the Leukè, or White Island, of the Periplûs.

[154] Zyghur probably takes the addition of Siddee from the Siddees, a mixed breed of Abyssinians, Natives, and Caffres, established in Visiapoor, and masters of a fleet upon the coast, employed by Aurungzebe against Sevagee. Orme says, they were a bold, ferocious race, and excelled all the navigators of India. Hist. Fragments, p. 81. But Cape Siddee is likewise written Cape Zeyd, and Cape Z. Zyghur, however, may be a place of modern date; I can find no other proof of its antiquity than what is here given, and therefore propose the whole with great hesitation.—It is written Jaigur in Moore's Narrative, pp. 2. 9. and Jaighur, by the same author. Gur, or ghur, is a *fort*; what is Zy? or Jai? or Zeid?

[155] Lib. vi. c. 23.

informs us, that the fleet which left Egypt early[156] in July reached Okêlis in thirty days; and then employed forty more, in crossing the ocean with the monsoon to the shores of India. The point where they left the coast of Arabia, was Suágros, or Fartaque; and the port they directed their course to, was Zizêrus. This had been the usual track, but was not a safe one, because of the pirates which infested the coast, and which made it necessary for the ships not to sail without a body of archers on board; for this reason they had been latterly obliged to change their port and repair to Muzíris, though it was a more inconvenient place to receive their lading, and still not safe from the attempts of the pirates in the neighbourhood. In the first instance, the pirates were on the coast; in the second, in the neighbourhood. This exactly agrees with the Periplûs, which places Meli-Zeigara in Aríakè or Concan, and Muzíris in Limúrikè or Canara; and when we come to Muzíris, we shall find a farther correspondence that appears conclusive.

I wish to build no more on this conjecture than it will bear; but as I have found the utter impossibility of assigning positions to the places named in the Periplûs, and pretend to nothing more than prescribing limits to the province, even a conjecture of probability is worth something on a barren subject; and to another, which must follow it, I attach no greater importance.

Ptolemy has the Semulla, Balepatna, Byzantium, Mandágora, and Melizigêris[157], of the Periplûs, all upon the Pirate

[156] Ante ortum canis. Pliny.—Salmasius says, the Romans reckoned the 19th of July as the rising of the Dog Star. 1188.

[157] Melizigêris, in Ptolemy, is an island, the Meli-zeigara of the Periplûs on the continent, and the Zizêris or Zizêrus of Pliny is a river and a port. The islands of Ptolemy are in such disorder on the coast of Gadrôsia, in the

Coast; and on that coast, therefore, they undoubtedly existed, and not in Guzerat, where D'Anville has placed them, or in Malabar, whither they are carried by Paolino. That good Carmelite informs us, that Balepatna[158] signifies *a great city;* it is no great force, therefore, put upon this interpretation, to make it *the great city*, the capital, or the residence of a sovereign. And on this coast we have two Rajapoors, meaning, literally, the City of the Rajah. The most northerly of these, called Dunda Rajapoor, does not disagree with the Balepatna of Ptolemy. The distortion of his maps, however, does not allow us to speak with precision on the subject; but if his Semulla[159] be St. John's Point (which it is more like than any thing else), his Balepatna lies somewhat short of two degrees lower down than his Semulla, and Dunda Rajapoor lies nearly at the same distance from St. John's. If I gain nothing by advancing these conjectures, I at least do no prejudice to my author; for his Palai-patmai is subsequent to Kallíena, and his arrangement is not disordered by the present supposition.

But where there is so little certainty attainable, it will be some pleasure to rest at last upon a point that presents us a resemblance of truth. This, I am persuaded, I have found in the islands that terminate Aríakè—the Concam of the moderns, the Kemkem of the Arabian geographers, and the Pirate Coast of all. I assume, then, the Sesekréienai of the Periplûs for the

Red Sea, and the Indian Ocean, that there is nothing extraordinary in their misplacement on the coast of India. His Ægidium is carried down to Ceylon.

[158] So Belia-puttun, great *puttun*, town or city. Moor's Narrative of Little's Detachment, p. 497.

[159] That Semulla was a point of consequence, is evident from Ptolemy, lib. i. c. 17. where he adds, that the native name is Timoola. But Semulla, in the Periplûs, is south of Bombay.

Burnt Islands, or Vingorla[160] Rocks of the Charts; and the two islands of the Aigidii and Kainîtai, for Goa and Murmagon. Kainîtai is said to lie close to the Chersonese[161]; and one only Chersonese I find on the whole coast, which is Salcet, surrounded almost by the Sound of Goa, and the River Nerengal, and so conspicuous, that it may be considered as a certain proof of a position not to be resisted: for a peninsula it is called by Gemelli, sixty miles in circumference, containing fifty villages and fifty thousand souls. It is true that the Angedives are not forty miles from Goa; and the resemblance of Aigidii to Angedives, has induced a general belief that they are the same; but the mention of two islands distinctly, and the vicinity of the Chersonese[162], preponderate against all similarity of names; and the boundary of the two provinces, which immediately ensues, added to the previous circumstances, gives great weight to the evidence.

The Burnt[163] Islands, or Vingorla[164] Rocks, are a cluster

[160] Written Wingurla by Baldæus, and in his time in the hands of the Portuguese, and a place of note.

Ilheos Quemados of the Portuguese. Gemelli Careri. Churchill, iv. 213.

[161] Κατὰ τὴν λεγόμενην Χερσόνησον.

[162] The appearance of a Chersonese is not so manifest in Rennell's Map, as in that of Orme; but the point off which the Angedives lie, cannot in any sense be deemed a Chersonese, but a promontory only. Should I be mistaken, it is an error only of forty miles—moderate enough in comparison of seven hundred.

[163] The text is .... Τυραννοξόας. Εἶτα Σησεκρείεναι λεγόμεναι νῆσοι, καὶ ἡ τῶν Αἰγιδίων, καὶ ἡ τῶν Καινειτῶν κατὰ τὴν λεγομένην Χερσόνησον, καθ' ἃς τόπους εἰσὶν Πειρατάι. Καὶ μετὰ ταύτην Λευκὴ νῆσος.

It seems as manifest here that ἡ τῶν Αἰγιδίων, and ἡ τῶν Καινειτῶν, are joined, as that Λευκὴ is distinguished separately by μετὰ ταύτην. D'Anville interprets Αἰγιδίων *hircorum*, and not without probability; for goats were placed on uninhabited islands by ancient as well as modern navigators; but I have not found the diminutive Αἰγιδίον from αἴξ. Dive, *an island*, is written Διβὴ by Cosmas, and Αἰγὸς διβὴ, or Αἰγιδιβὴ, would be literally Goat Island.

[164] Sesekréienai, as I understand from Mr. Hamilton, signifies black rabbits. The caprice shewn by seamen in the names they assign to places, may excuse the introduction of the term. Whether the islets themselves lie crouching like these animals, or whether rab-

not[165] very well known, till lately, in lat. 15° 52′ 30″. They lie six or seven miles off shore, on a tract inhabited by a piratical tribe called Mulwaans, and are reckoned twenty[166] in number, seven of which are small islets, while many of the others are barely visible at high water; and there is a good channel between them and the main. The bare mention of such a group in the plural, with their relative situation in regard to the Islands of the Aigidii and the Kainîtai, seems to qualify them for the representatives of the Burnt Islands; while the Pirates, in their vicinity, add to the resemblance. Their distance from Goa is little more than thirty miles, and no other Island intervenes.

There are in reality twelve islands at Goa, formed by different channels in the sound:

Goa[167].
Bardez.
Salcet, or Murmagon.
Charon, or perhaps Ciour.
Dinar, or Harva.
Capou.
Combargiva.
Juvari.

bits have been deposited here like goats on other uninhabited spots, for the use of navigators, I have no means of ascertaining; but as trivial a circumstance as this may, some time or other, lead to the discovery of truth. The natives of the coast, no doubt, have a name for them: the title we give them is derived only from their vicinity to Vingorla, on the continent.

[165] Rennell's Memoir, p. 31.

[166] In the Oriental Navigator, p. 217. But there are seven principal rocks, or islets, in C. Huddart's Chart, by Mr. Dalrymple. There are also plans of Vingorla and Sinderdroog, the residence of the Mulwans or pirates of Melundy, among Mr. Dalrymple's drafts of places on the coast of Malabar.

[167] Gemelli Careri, p. 221.

St. Stephen.
Isle of Emanuel Lobo.
Isle of Emanuel Motto.
Dongarin.

But if, on the account of their number, we should be disposed to assume these for the Sêsekréienæ, there are not two islands between Goa and the Angedives to correspond with Aigidii and Kainîtai. The fact is, that out of the whole twelve islands only Goa and Murmagon are conspicuous; the others lie obscured in the sound.

This is a sufficient reason for assigning Aigidii [168] to Goa, and Kainîtai to Murmagon [169]; for Leukè, or the White Island, is separated from them by the text, and I have little hesitation in carrying it to Angedive. This disposition would account for all the islands upon this part of the coast, and place them in a relative situation perfectly consistent with the Journal. Kainîtai cannot be questioned, if its vicinity to the Chersonese be considered; but the assumption of Leukè for the Angedive I would leave to the determination of any Navigator acquainted with the coast, who could ascertain whether it has any appearance of whiteness [170] to distinguish it from other Islands.

[168] Aigidii, or Aigidiæ, comes so near Angedive, that it is assumed by almost every writer on the subject; and if it had preceded the Chersonese, instead of following it, would have been conclusive. But the point off which the Ange-dive lies, would, I think, be called a Chersonese by no ancient author.

[169] Murmagon is so conspicuous that it becomes a port during the monsoon, when the bar of Goa is choaked, so as not to admit vessels of any considerable size. Gemelli, p. 216.

[170] I have myself found no white island nearer than the Sacrifice Rock near Calicut, which is 270 miles from C. Ramas. That rock is white with the mewt of birds, but it is too distant to enter into any arrangement with the part of the coast where we now are. Capt. H. Cornwall's Remarks, p. 26. mention this whiteness, as I am informed.

The Angedives signify five islands; and Ptolemy has a Heptanêsia, or group of seven islands, intended to represent this cluster, but so misplaced, as not to admit of any conclusion from it. One of these only is inhabited and fortified [171] by the Portuguese, who have a garrison here composed of malefactors exiled from Goa; the others, whether more or less than the numbers which give it different names, are only islets or rocks. The passage between the principal island and the main is clear; and this affords it a prominence, which may have entitled it to the notice of the Periplûs.

In the Sound of Goa, the principal island, with its dependencies, had afforded a place of refuge for such Mahomedans as had been driven from the Hindoo ports or cities on the continent, before the arrival of the Portuguese. Here the Mahomedans of the peninsula collected, who intended to embark for Judda, and perform their pilgrimage to Mecca. This alone was sufficient to make it a port of importance; and the more so, as we may conclude that the Hindoos had no influence and no share in the government; for the Mahomedans had established themselves here, as the fugitives on the coast of the Hadriatick had done on the islands which now compose the city of Venice; and they seem, like them, to have formed a community, which was distinguished by the name of Tricurii, or the Thirty Villages. The Portuguese, from their first arrival, had conceived a design of occupying this position: they first built a fort [172] on Angedive, and in 1510 Goa itself was

[171] Oriental Navigator, p. 221. It is a mile long, but not so much broad.

[172] Almeyda, according to D'Anville (Antiq. de l'Inde, 110.), laid the foundation of a fort.

taken by Albuquerque; it was recovered again by the Mahomedans the same year, and finally retaken by Albuquerque in 1511. Under his auspices, it became the head and centre of all the Portuguese settlements in India; and is still in their possession, after a period of three hundred years.

D'Anville is disposed to place Goa at Nelkunda; that is, at the southern, instead of the northern boundary of Limûrikè; but he is not satisfied with his own supposition, and abandons it. He fixes, likewise, Aigidii at the Angedives; to which Paolino assents, without reflecting that there must be two islands together, connected with a group preceding and a single island following. These circumstances cannot accord with the system they have adopted; but are perfectly consistent with the Periplûs, and the disposition I have assumed. I have no predilection to this arrangement, because it is my own; but I have tried the Journal by the best charts I have of the coast, and can find no points, either to the north or to the south, which will correspond; and therefore conclude, that by this every thing is done for obtaining the truth that the text will admit.

But the division of the provinces remains still to be considered; and the termination of Concan is fixed by our charts at Cape Ramas, about two-and-twenty miles south of Goa; near which is Carwar, once an English factory in the territories of the Soonda [173] Rajah; and the jurisdiction of this prince is said by Capt. Hamilton to extend from Cape Ramas, about fifteen leagues along the coast to Meerzee, or Meerzaw. This

[173] Tippoo Sultaun removed 70,000 Christian inhabitants from Soanda and Bidilinore, who were cultivators. Kirkpatrick. Asiat. An. Reg. 1799, 318.

tract, including the Angedive and the cape off which it lies, I should wish to comprehend within the limits of the ancient Aríakè, and I think the modern boundaries favour the conclusion; for the kingdom of Canara does not commence but at the termination [174] of Soonda; and though I cannot ascertain that the coast, north of Goa, called the Dekan, or south of it, called Soonda, are considered as parts of Concan; yet it is very clear, that the limit between Soonda and Canara is at Meerzee. At Meerzee, therefore, I assume the boundary between Aríakè and Limúrikè, guided by the Leukè of the Periplûs, as the last place mentioned in Aríakè, and by Naoora, as the first place mentioned in Limúrikè. This assumption, if correct, will reconcile the positions on the whole coast, from Goa to Cape Comorin; and if erroneous, confines the error within the distance between Murmagon and the Angedive: an error, at the utmost, of forty [175] miles; moderate in comparison of the disagreements between d'Anville and Paolino; and causing no disorder in the arrangement of the provinces, but such as may be remedied by the most transient reference to the map.

The province of Aríakè was under the government of Mámbarus, and Limúrikè, which we now enter upon, was subject to Kepróbotas, comprehending the modern kingdom of Canara, and terminating on the south with the kingdom of Pandíon, which answers to the Malabar of the present day. The ports of this province will be treated of in their regular order; but before we descend to particulars, let us survey these four divi-

[174] See De la Rochette's Map of Hindostan, which agrees with C. Hamilton, and Hamilton remained some time at Carwar. See vol. i. 259. Orme likewise fixes it at Mirzeou.

[175] Rennell makes it fifty miles, De la Rochette thirty-five, and Orme the same number.

Hist. Fragments, p. 73.

sions of the coast, as they stand in the Periplûs, corresponding with the present distinctions of the provinces; let us add the possibility of assigning the respective limits in both instances, and then ask ourselves, whether this is not a more rational way of interpreting our author, than by searching for a resemblance of names, which has misled so great a geographer as d'Anville; and in which, if it were reasonable to indulge, many new similarities might be discovered, that have not yet occurred to any one that has prosecuted the inquiry.

The province of Barugáza, answering to Guzerat, under the power of Minnagar, commencing at the Indus and terminating at the Tapti, is the first. The second is Aríakè, subject to Mámbarus; a sovereign whom we might compare to Sevagee, or a Mahratta power of the present day; bordering north on Guzerat, and south on Canara; of the same extent as the Pirate Coast, and distinguished at this day as fixing the same boundary to the Mahratta language, as to the province, ancient and modern. Limúrikè is the third, with its northern confine either at Cape Ramas or Meerzee, and its southern previous to Nelkunda; corresponding with Canara, which commences at the same point [176], and has its southern limit at Decla. And lastly, the kingdom of Pandíon as a fourth division, equivalent to Malabar Proper, succeeded by Paralia and Cómari, and terminating with the Pearl Fishery and Ceylon. Let us, I say, contemplate this general picture of the whole coast, from the Indus to the southern cape of the peninsula; a space comprehending fourteen hundred miles, through the whole of which the ancient divisions are found consistent with those of the present day;

[176] Orme, Hist. Frag. p. 73.

and we cannot, under all these circumstances, fail to acknowledge the information of our author, and the importance of the work he has left for our instruction.

After this comprehensive view, the contention which may arise about the appropriation of individual names to particular ports, towns, or stations, is a matter of very inferior consideration: my conjectures or assertions may be disputed as well as those of others, who have trod the same ground; but till the great outline which I have traced can be obliterated, the service rendered to the science must be acknowledged.

Many of the gentlemen now in India are possessed of minds illuminated by education, and stimulated with a desire of enlarging the bounds of science, or assisting the inquiries of literature; these, in their respective situations, must have acquired a local knowledge, which cannot be obtained by those who draw their information from written evidence alone. To such men as these I have made a constant appeal, and submit the deductions I have traced to their correction; particular errors there may be, but by the general division of the provinces, I leave a guide to all that may be disposed to further these inquiries, and a rule for rectifying every thing in which I may have been mistaken. Still the investigation should be made, not by those, like Fra Paolino, who drew every thing to Malabar, because he had resided thirteen years in the province, but by men of enlarged mind and general information, qualified, like Capt. Wilford, with classical learning, and a knowledge of the native language; enabled to direct their view to ages past as well as present; and possessed of comprehensive faculties, which can embrace the general state of India, as well as the

particular province in which they happen to have been employed. From men of this stamp I shall experience every indulgence; and if they should acknowledge that light has been thrown upon one of the most obscure objects of inquiry left for our discussion by the ancients, I shall rest satisfied with the result of my labours.

IX. LIMURIKE.

How d'Anville could be persuaded that this province was the representative of Concan, is inexplicable; for Pliny, whom he chiefly follows, says expressly, that Muzíris was not on the Pirate Coast, but in its neighbourhood only; and the Pirate Coast is as clearly defined by all our ancient authorities, as by the modern accounts. Cape Ramas, as a northern boundary, and Nelkunda, in the territory of Pandíon, as a southern limit, identify Limúrikè so precisely with Canara, that we cannot be mistaken. These likewise are the limits of the language [177] at the present day, which is a distinct dialect from that of Malabar on the south, or the Mahratta language on the north; and this is a characteristic less fluctuating than any division of the country that conquest might produce.

The ancient kingdom of Canara embraced a large part of the peninsula, the capital of which was Bejapoor [178]; but the modern district of that name was chiefly on the coast, with its capital above the Ghauts. It was an independent state or

[177] La lingua Canara, che corre nel regno Canara dal monte d'Illy sino a Goa. Paolino, p. 262.

[178] Commonly written Viziapoor. Several of the dialects have no v, and others no b; j and z are likewise perpetually interchanged or confounded.

kingdom, till it was reduced by Hyder Ali in 1765; and it was at that time governed by a queen[179], who had driven out the rajah, a child of nine years old, in favour of her brother. Under pretence of assisting the deprived rajah, Hyder entered the country, laid siege to Bednoor and took it, and, in a very short time after, sent the queen with her brother, and the young rajah, into confinement in one of his hill forts near Bangaloor. Bednoor[180], the capital, is rendered famous by the defeat and death of the unfortunate General Matthews in 1783; and was considered by Tippoo Sultan as a fortress of sufficient strength to confide to it a very large portion of his treasures[181]. The conquest of Canara gave Hyder and his son a communication with the coast, and opened the way for farther incursions to the south, which were prosecuted to the devastation of Calicut and Cochin, and directed against Travancoor, when they were fortunately checked by the assistance of the English. Tippoo Sultan had likewise the ambition to become a maritime power: he built a frigate, and fitted out a fleet of the country vessels of war, with which he undertook an expedition to the Maldives, and added to his titles, that of Lord of the Thousand[182] Islands. Had he succeeded in his designs, he would have extended his dominions from Mysore to Cape Comorin, and extinguished the last remains of Hindoo government in the peninsula, except the Mahrattas.

[179] It was regularly governed by a queen. C. Hamilton's Account of East Indies, vol. i. p. 279.

[180] The Biddinore country alone yielded Tippoo eighteen lacks of pagodas, 900,000*l.* Kirkpatrick. Asiat. An. Reg. 1799, p. 318, et seq.

[181] Twenty-five lacks of pagodas, 4 crore value in gold, silver, &c. Valuing the pagoda at 10*s.*, 25 lacks = 1,250,000*l.* The author writes, a Bahaudry pagoda is = 4 rupees; Canterary or Old Mysore pagoda = 3 rupees.

[182] The natives style their sovereign, King of 12,000 islands. Harris, vol. i. 677.

This short recapitulation is not foreign to our subject; for though we hear much in history of the mild and gentle spirit of the Hindoos, they were as much enamoured of conquest as the Mahomedans; and in the age of the Periplûs, a king of Mádura, (the sovereign of [183] Pandi-Mándala, the Pandíon of the ancients,) had extended his power from the eastern to the western side of the peninsula, and was master of Malabar when the fleets from Egypt first visited the coast. The king [184] of Limúrikè, and the king of the country south of that province, that is Pandíon, are said both to have their residence inland by our author; and Pliny adds, that Pandíon lived *far* inland, at the city of Modúsa, which Ptolemy calls Modóora, the metropolis of Pandíon. The conjecture, perhaps, will not be admitted; but it seems as if the power of Pandíon had been superseded in Malabar, between the age of the Periplûs and Ptolemy; for Ptolemy reckons Aii next to Limúrikè on the south, and takes no notice of Pandíon till he is past Cape Comorin, and comes actually to Mádura, on the eastern side of the peninsula. Not that his east and west are on the two faces of the angle, for they are on a line; but he is relatively right, though essentially mistaken.

In the limits of Limúrikè, Ptolemy is nearly in correspondence with our author; for he commences with Tundis, omitting Naoora, and finishes with Bécare, which is close to Nelkunda, and Nelkunda in both is the first port of Malabar. Ptolemy, indeed, preserves many names more [185] than the Periplûs; for

[183] The natives, I am informed, still distinguish themselves by the name of Pandi, Pandoo, or Pandavi.

[184] The king of Canara might live above the Ghauts, as well as the queen that Hyder destroyed by the capture of Bednore.

[185] Many more appear in Capt. Hamilton's account than we have occasion to notice at

he seems, upon all occasions, to insert every name he could collect, and the merchant specifies those only that were frequented for the purposes of commerce. He notices but three in this province—Naoora, Tundis, and Moozíris; all distinctly marked as subject to Kepróbotas, and in a different district from Nelkunda, which was in the kingdom of Pandíon.

It is remarkable, that not one of these three places is accompanied with any local circumstances sufficient to mark its distinction; but Moozíris is five hundred stadia south of Tundis, and Nelkunda at the same distance south from Moozíris. If therefore we could fix Nelkunda, though in a different province[185], we ought to measure back these twice five hundred stadia, as the only means of direction that we possess.

The following arrangement, therefore, I offer, with all the diffidence that the obscurity of the Journal demands: I have persuaded myself that it is correct; but I should not be surprized if my deductions should appear inconclusive to others. I have followed the only clew I could discover; and if any one, who has paid attention to the subject, should find better ground to stand on, I shall readily relinquish my own, and yield to superior information.

For the position of Nelkunda, I am obliged to Major Rennell, who is the first geographer, as far as I have learnt, who has fixed it at Nelisuram. That he is correct in this, I am

present. C. Hamilton throughout considers Canara as the richest country of the coast; but plundered by the Mahrattas, Malabars, and Arabs. Such a work as the Oriental Navigator must notice every place; a merchant, only those where he traded. This is exactly the difference between Ptolemy and the Periplûs.

[185] Nelliceram is in a different province, for the boundary wall is at Dekla. De la Rochette.—See also Capt. Hamilton, vol. i. p. 289. who makes Decully, or Dekla, the limit.

persuaded, admits not of presumptive proof only, but demonstration.

For we may first observe, that Nelisuram is not only a mart itself, but gives name to a district. This district is not in Canara, but Malabar: the frontier of Malabar, the boundary wall [187] which runs from the sea to the foot of the Ghauts, is at Dekly, or Dekully, immediately north of Nelisuram. This wall is still visible; and this in a peculiar manner makes it correspond with Nelkunda, which was the first port in the kingdom of Pandíon.

2. A second proof may be derived from the name itself, which Orme writes Nellea-seram. Nella, according to Paolino [188], signifies *rice*, and Ceram a *country*; and if Nella-ceram be the country [189] of Nella, Nel-kunda must be the fort of Nella, resembling Gol-conda, Inna-conda, or [190] Condapoor, on this identical coast of Canara.

3. But the last and best testimony is that of Major Rennell himself [191], who mentions "a large river, named Cangerecora, "whose course is from the N.E. and which falls in about four "miles to the north of Mount Dilla; previous to which its "course is parallel to the sea-coast for about eleven miles [192],

[187] Orme. D'Anville, Antiq. de l'Inde, p. 112.—"The coast of Canara extends to "Declah, eight or nine leagues north of "Dilly." P. 220. 223. Oriental Navigator.

[188] P. 170.

[189] Batecola, between Onoor and Barceloor, has the same meaning. Bate or Pate rice—Colôn country. Vossius ad Mel. lib. iii. 7.

[190] I have been treated with severity by the Orientalists for encroaching on their province; but in India, every name of a place is significant; and perhaps in every other country, if we could trace the language which first assigned the several respective titles. In this instance, however, the etymology is not mine, but deduced from an Oriental Grammarian, and I am only accountable for the deduction. I ought to add, that, according to his mode of interpretation, Coonda-poor is identically Castleton.

[191] Memoir, p. 28.

[192] Capt. Hamilton calls it a fine, deep river, which keeps its course along shore eight

" being separated only by a spit of land. The forts of Neli-
" suram, Ramdilly, and Matteloy, are situated on this river,
" which is joined by several others that descend from the
" Ghaut mountains, which in this part approach within twenty-
" two miles of the coast. I cannot help considering this
" Nelisuram, which is situated twelve miles up the river,
" as the place meant by Nelcynda or Melcynda, by Pliny,
" and Ptolemy—a place visited by the Egyptian and Roman
" ships."

Let us then observe, that the Nelkunda of the Periplûs lies actually the same twelve miles up the river; and after this ask, whether all these circumstances can be accidental? But if the correspondence be admitted, the proof amounts to demonstration.

It is with the most anxious solicitude that I have concentrated all these peculiarities to a point; because I shall want all the authority of so able a geographer, to support the conclusion I shall draw from his premises; and though he supplies me with a basis, I am not certain that he will be pleased with the superstructure I shall raise on his foundation; for, grant that Nelkunda is Neli-ceram (which from every kind of evidence I am persuaded that it is), and it will immediately follow, that Onoor [193], Barceloor, and Mangaloor, are the

leagues, at a bow-shot distance. It disembogues itself by the foot of Mount Delly, over rocks and sands, in a channel half a league broad. Vol. i. p. 290.

[193] The English generally write and pronounce Onore, Mangalore, &c.; but Paolino says, *ur* signifies *borgo*, a town, and the Italian *ur* is the English *oor*.

NAOORA, TUNDIS, AND MOOZIRIS, OF THE PERIPLUS.

THESE are the only places mentioned in Limúrikè; they are the principal places of Canara to this day. Naoora is the first port of Limúrikè, as Onoor is of Canara; and Moozíris[194] so precisely the last, that we have been obliged to encroach upon the succeeding province before we could discover it. But the discovery will be now complete; for the Periplus places Moozíris fifty miles north of Nelkunda, Tundis fifty miles north of Moozíris, and, if we assume a third fifty north to Naoora, we have the whole three ports as precisely as we can open the compasses. I request the reader to refer this inquiry to the maps of Rennell, de la Rochette, d'Anville, or any other rather than my own, to remove all suspicion of accommodation, and to assure himself of the certainty, not upon my assertion, but his own conviction. It is true that I am directed to Onoor, in some degree, by its similarity in sound to Naoora, but much more strongly by considering that Naoora is the first port in Limúrikè, as Capt. Hamilton writes that "Onoar[195] is the "northernmost port of Canara." And if these three ports are

[194] Cosmas informs us, that Mangaruth [Mangaloor] was, in the sixth century, one of the principal ports for the exportation of pepper. The mention of this article is an acquisition of evidence; but the ascertaining the antiquity of the name, as far back as the sixth century, is still more in our favour. See Cosmas in Thevenot, p. 3. & Nova Collectio Patrum, in fine. Mangaloor is pronounced Mungloor by the natives, according to Capt. Moor, Narrative, p. 471. A and u are perpetually interchanged in Persic and Arabic. Paolino informs us, that Mangul-ur signifies *the Town of Felicity*, and Mangula-puri, as it is sometimes called, *the City of Felicity:* Tippoo changed it to Jumul-abad, *the Abode of Elegance;* and if future writers were to adopt the last change, Mangaloor might be hereafter as difficult to discover in Jumul-abad, as it has hitherto been in Moozíris.

[195] Vol. i. p. 275.

established by a reference to Nelkunda, some credit is due to a discussion which ascertains the position of Mooziris [196]; a point on which all are at a loss, and no two geographers [197] fully agreed.

There is a river at each of these ports, and in them the whole trade of the country has in all ages been carried on. The former wealth of the province is still evident, from the remains of tanks, pagodas, and public buildings, still existing. Of Naoora [198], indeed, no particulars are mentioned except its name; but Tundis [199] is said to be a village in the kingdom of Kepróbotas; Moozíris was under the same sovereign; and here, it is added, that there was a great resort of the native vessels from Aríakè or Concan, as well as of the Greek fleets from Egypt. Another particular recorded is [that the coast

[196] The relative importance of Mangaloor, in modern times, qualifies it for Moozíris above any other place in Canara. "Mangalore is "the greatest mart for trade in all the Canara "dominions: it has the conveniency of a river, "produced by three that come into it by "different ways, from the south, the east, and "the north . . . those three rivers join about "a mile from the sea, and at Mangulore "disembogue at one mouth." Capt. Hamilton, vol. i. p. 282.

[197] Mooziris is fixed at Mirzeou by Rennell, at Vizindroog by d'Anville, at Calicut by Hardouin and Mercator, and left undetermined by Robertson and Paolino.

[198] The text stands thus:

Εἶτα Νάωρα καὶ Τύνδις τὰ πρῶτα ἐμπόρια τῆς Αιμυρικῆς, καὶ μετὰ ταύτας Μέζιρις . . . . . βασιλείας δ' ἐστὶν ἡ μὲν Τύνδις Κηπροβότου . . . . ἡ δὲ Μέζιρις βασιλείας μὲν τῆς αυτῆς . . . . κεῖται δὲ παρὰ ποταμὸν, ἀπέχουσα ἀπὸ μὲν Τύνδεως, διὰ τῆ ποταμῆ, καὶ διὰ θαλάσσης, σταδίους πεντακοσίους, ἀπὸ δὲ τῆ [ποταμῆ] κατ' ἀυτὴν εἴκοσι.

Where I insert ποταμῆ, Salmasius reads ἐμπόρίῳ; and he has placed Tundis at the mouth of the river of Moozíris; but where can we find a river navigable for fifty miles on this coast? which must be the case if Tundis is the road, and Moozíris the mart, fifty miles up the stream. Plin. Exer. p. 1185. Moozíris may easily lie two miles from the *river*. This measurement by the rivers induces Paolino to carry these three ports to the inlets between Calicut and Cochin. This supposition has some weight. But if we refer to the Map, and take a view of the intricate channels that wind inland in Cochin, it does not appear that any one distance by those channels, and by sea, can be reduced to the same standard.

[199] D'Anville fixes Tundis at Dunda-Rajapoor in Concan.

was so near a right line] that whether you measured the distance between Tundis and Moozíris from river to river, or from the passage by sea, the distance was equal. The same circumstance is repeated in regard to the distance from Moozíris to Nelkunda: it is five hundred stadia, says our author, or fifty miles, whether you measure by land or sea, or by the space between the two rivers.

Pliny[200] does not mention a river at Moozíris, but observes, that it was no desirable place of trade, not only on account of the pirates in the neighbourhood, but because the ships rode at a distance from the shore in the open sea, and boats were employed for the conveyance of their lading, both on the delivery and the reception. The merchants had therefore tried a more convenient port, called Necanydon, where they obtained pepper from a district called Cóttona. This is the pepper of Cottonára mentioned in the Periplûs, and assigned by every writer to the province of Canara. There is, upon the whole, no essential difference in the two accounts, except the mention of pirates by Pliny not noticed in the journal; but unless Hydras could be discovered, we cannot ascertain their position: it is supposed to be the Nitria of Ptolemy, the last place upon his Pirate Coast; and though that is not *near* Mangaloor, doubtless the pirates roved on the coast of Canara in former ages, as they do now, and pirates there have been at d'Illi and the Angedive, as well as in Concan.

Moozíris is written Modíris, Moodíris, Moondíris, Zmiris, and Zymíris, by different authors, which might lead some in-

[200] The text of Pliny is very corrupt. The expression is, gentis Necanydon, the country of the Necanides; but the mention of Becare with it proves it to be Nelkunda.

quirer, on the spot, to farther discovery. Both the Periplûs and Pliny certainly consider it as an inferior port to Nelkunda; for no account of the imports or exports is given here, but at Nelkunda a copious catalogue. That Moozíris continued a place of resort in later times, we may conclude from the Peutingerian Tables, which place there a temple of Augustus, that is, of the emperor of Rome; for at the date of the tables, in the time of Theodôsius, every emperor was Augustus; and that the Greeks or Romans should have a temple here, is no more extraordinary than that the Christians should have churches in Travancoor, or that the Arabs should have established their superstition in Ceylon, which is a fact asserted by Pliny.

Dodwell has built some arguments on this circumstance, and on the names of the kings, which are the same in Ptolemy, Pliny, and the Periplûs, in order to bring down the date of this work to the time of Commodus and Verus. But Paolino affords a solution of this difficulty, which is perfectly satisfactory if his etymology be true; for, he observes that Kepróbotas is written Celébothras and Ceróbothrus; and he informs us that Ceram signifies a *country*, *region*, or *province*, and botti, a *governor*; so that Cerambotti is as manifestly the *head* or *sovereign* of a *province*, as Ceram-perumal is *king of the country*, compounded of Ceram, a *country*, perum [201] *great*, and aal *personage*, the great *personage* or sovereign of the kingdom. And as Ceramperumal was the founder of the kingdom of Malabar in the year 907 [202] of our era, there is much probability in this

[201] Governor Duncan joins in this interpretation of Perumal. As. Res. vol. v. It is a curious and valuable paper.

[202] There is another date 805. D'Anville, 114.

interpretation. If this etymology be admitted, it accounts for the name of Ceróbothrus in Limúrikè, and that of Pandíon in Malabar, not only in the different ages of Pliny, Ptolemy, and our author, but for as long a period as these divisions of the country continued undisturbed; for Mádura is still known in India as having the ancient title of Pandi Mándala, *the kingdom of Pandi*, or the Pandoos; and Pandavais was the founder of the sovereignty, according to the Bramins. Pliny [203] therefore was mistaken, in assuming a general title for a proper name, as well as Ptolemy, and the author of the Periplûs.

X. KINGDOM OF PANDION, OR MALABAR.

The native appellation of Malabar, we are informed by Paolino, is Kerula Ragiam, the Kingdom of Kerula, or Malayálam, the *Mountain Country*, derived from the Ghauts which bound it inland, and are visible from a great distance at sea. He adds, that Malangara is an Indian term corrupted into Malabar, and ought not to be deduced from the Arabic mala, a *mountain*, and bahr, a *coast*. It is not necessary to assent to this; because, when the Europeans first visited India, after the discovery of Gama, they derived their information from the Arabs, and consequently adopted their terms. At that time Calicut was the grand mart of the Oriental world; for here the trade from China and Malacca met the Arabs and Persians, who brought the produce of their own countries, as well as several articles which they procured from Europe; and though

[203] Regnabat ibi, cum hæc proderem, Celebothras. Plin. vi. 23.

some Arabian vessels penetrated to Malacca, or even China, and some Chinese merchants, as it is said, extended[204] their voyage to Arabia, or to Keish and Shiraff, in the Gulph of Persia, the general point of intercourse was Calicut. When the Portuguese reached the eastern coast of Africa, they were directed neither to Surat or Baroache, but to this city; and here they found the Arabs settled in the country so powerful and numerous, as to obstruct their commerce, and traverse all the plans they had conceived. According to Barthema[205], there were not less than fifteen thousand of them settled in this place only, besides numerous bodies of them on the coast, in Ceylon, and in Coromandel.

The influence they had in the country may be calculated, not only from this instance, but from the revenue their commercial transactions produced; from their readiness to engage in all the services of war, policy, and government; from the spirit of adventure which appears in all their conduct; and above all, from the desire of extending their religion, as well as promoting their individual interest. The character under which Paolino describes them at the present hour, would probably have suited them in every age.—"They[206] are a robust race, "wearing their beards long and their hair neglected; they are "slovenly[207] in their persons; their complexion is dark, and "their clothing consists of nothing more than a shirt and "trowsers of cotton. They are active and laborious; seldom "appearing in the streets but in a body, and always armed.

[204] This opinion is founded on the report of Renaudot's Arabs, and will be considered hereafter.

[205] The evidence for their power and number is also very clear from M. Polo, and their employments in trade and war. See Lib. iii. Ceylon, and p. 54.

[206] Paolino, p. 84.

[207] Sporci, filthy

"They sleep in tents or booths, dress their victuals in the open "air, and work, during the night, by the light of the moon. "They assist one another in lading and unlading their ships, "and they drink plentifully of toddy and arrack. Upon re- "ceiving the least affront, the revenge is common to all." Their trade is still considerable[208] both at Cochin and Calicut; for not less than an hundred ships are employed in this trade, from Maskat, Mokha, and Judda; and the commodities they purchase are of a better quality[209] than those obtained by the Europeans; because the Europeans, either by their power, or by contract, have bound the native government to furnish them with pepper and other articles at a regulated price.

The Chinese no longer frequented the port of Calicut[210] when the Portuguese arrived in India: they had been ill-treated by the Zamorin, probably at the instigation of the Arabs, and for the same reason which excited their jealousy of the Europeans; and after a fruitless attempt to revenge themselves, the Chinese ships came no longer to Malabar[211], but to Maliapatam only in Narsinga, on the coast of Coromandel.

Now this trade with the countries farther to the east, and the interest which the Arabs had in the communication, is in full correspondence with the account of Pliny[212] in the first century, with Ptolemy in the second, with that of Cosmas in the sixth, with the Journal of the Arabs (published by Renaudot) in the ninth, with the experience of Marco Polo in the thirteenth, and

[208] Paolino says, they make two voyages in a year; but I do not understand how this can be, if they sail with the monsoon.

[209] Cæsar Frederick in Hackluit, p. 223.

[210] Calicut and the Zamorin himself are now under the government of the English. The produce of the country is pepper, rice, cocoa nut, coir rope, &c. As. An. Reg. 1802, Miscel. p. 16.

[211] Barthema in Grynæus & Ramusio.

[212] Lib. vi. cap. 24.

with Nicola di Conti, sixty years previous to the arrival of the Portuguese in India.

It appears from Pliny, that the Arabs were so numerous in Ceylon, as to have occupied the country below the Ghauts, like the modern Europeans; for their superstition had prevailed over that of the natives on the coast. He adds, that the Seres[213] were known in that island by means of the intercourse which commerce produced; and that the father of the rajah who came upon an embassy to Claudius, had been in their country. This corresponds with the information of the Periplûs, and that a regular communication was open between India and Malacca, there can be no doubt; because Ptolemy has noticed a port on the coast of Coromandel, from which the fleets sailed which went to Chrusè, or the Golden Chersonese. Here we may fix the limit of ancient discovery; and whether we chuse to carry this trade to China, as some have supposed from the name of Sinæ, Thinæ and Seres, or whether we fix it at the peninsula of Malacca, it is in effect the same; for in that peninsula there have been, in different ages, the kingdoms of Tonquin, Cochin China, Pegu, Siam, and Ava; all partaking of Chinese manners, habits, and customs, and all furnishing, in some degree, the commodities we now procure in China. How the report of these countries, indeterminate as it was, reached Greece so early as the age of Eratósthenes[214], is

[213] Pliny says, moreover, Seras ab ipsis aspici; as if the coast of the Seres were in sight. But Salmasius proposes reading, ultra montes Emodos Seras quoque ab ipsis aspici, notos etiam commercio; meaning that the Ceylonese went by land into Tartary, and so to China.

[214] If Eratósthenes derived all his knowledge from Timósthenes, as Marcian informs us; Timósthenes, who was sent down the coast of Africa by Philadelphus, must have acquired his information either there or from Arabia. But the Thinæ are mentioned in Aristotle's Treatise de Mundo; and if that work be really

a great problem, not easy to resolve; but that in later times some merchants had been induced, by interest or curiosity, to attempt the voyage, and reside as factors in the country, is asserted by Ptolemy. That all knowledge, however, beyond Ceylon was obscure, is undeniable; for here the marvellous commences, which is constantly the attendant upon ignorance; and in whatever author it is found, we may be assured he has no certain information on which he can depend.

Within the limits of Ceylon all the general concerns of commerce were certainly confined, in the age when the Periplûs was written; and whatever might be the extended attempts of the Arabs, very few of the vessels from Egypt ever reached that island. Nelkunda was the Calicut of their day; and standing in the same country, and affording the same commodities, they procured here for the market of Alexandria the drugs, spices, and other precious commodities, which have ever been in request throughout Europe.

At Nelkunda let us now pause, written Melênda [215] by Ptolemy, Melkunda by his commentators, Necanidon by Pliny, Neakyndon by Hardouin, and Nincîlda in the Peutingerian [216]

Aristotle's, it proves that the Golden Chersonese had been heard of in the time of Alexander.

[215] D'Anville has found an Ophir in Arabia, connected with a Sefareh el Zinge on the coast of Africa, and a Sefareh el Hinde in India. Would not the same speculation discover a Melinda on the coast of Africa, and a Melênda in Malabar?

[216] It is a very singular circumstance, that the Peutingerian Tables should have the same names as the Periplûs on this coast, but reverse them; for as they run Tundis, Muzîris, Nelkunda, in the Journal, they stand Nelkunda, Tyndis, and Muzîris, in the Tables, with Blinka, a corrupt reading for the Elanki of Ptolemy, and Colchi Sindorum, for the Kolkhi of both. There is mention likewise of a temple of Augustus, or the Roman emperor, and a lake at Muzîris. These circumstances, however erroneously stated, still tend to prove the continuance of this commerce,

Tables. It is said to be the same as Becarè, by Pliny, and *near* Barákè, or Ela-Barákè, by the Periplûs. That is, Barákè is a village at the mouth of the river, which, joined with Ela, cannot fail to remind us of Eli, as it is written by Marco Polo[217], the d'Illi, or d'Illa, of our modern charts. D'Illi is one of the most conspicuous points on the coast, and, as far as I can discover by the maps, the only remarkable mountain close to the shore. This I had supposed to be called Mount Purrhus in the Journal; but if Purrhus is to be interpreted as a Greek term, it signifies the *Ruddy Mountain*[218]; and I have since learnt, that d'Illi has not this appearance, but that there are heights both to the north and south, which still bear the title of Red Cliffs, and which will be noticed in their proper place. The mouth of the Nelisuram river, or Cangerecora, at Ramdilli, is placed by Rennell almost close to the mountain; and [219] Ram-d'Illi[220] again contains the name of Ela, and is manifestly the Ela-Barákè of the Journal.

At Barákè the vessels rode till their lading was brought down from Nelkunda. It seems by the text as if the navigation of the river were safe, and that the ships went up to the city to deliver their cargo, and then came down to Barákè to receive their lading in return; if so, it is a presumption that they returned deeper laden than they arrived, as most vessels from

from the time of Claudius to Theodosius—a space of above three hundred years; and a probability that the Roman merchants had settled a factory at Moozíris, as they would scarcely have built a temple there, without some sort of residence in the country.

[217] It is written Eli, and d'Eli, in Bergeron's translation; Deli, in Ramusio.

[218] Τὸ Πυῤῥὸν Ὄρος.

[219] Ram is a common adjunct, as Ram-Rajah, Ram-Nagar, &c. signifying (possibly) *inferior*, *little*, in opposition to Maha-Rajah, the *great* Rajah.

[220] D'Illi is written Dilla, Deli, Dehli, and Delee, in different charts; and Eli, in Marco Polo.

Europe do at the present day. But there is some confusion in the text, and one corruption [221] at least: in modern [222] accounts, the river itself is described as large and deep, but obstructed at its mouth by shoals and sand-banks. The approach to this coast likewise is discoverable, as well as that of Guzerat, by the appearance of snakes upon the surface of the sea, which are black, shorter than those before mentioned, more like serpents [223] about the head, and with eyes of the colour of blood. This is a circumstance confirmed by Paolino, who lived thirteen years in the country, and who accounts for it by supposing that they are washed down by the rivers in the time of the rainy season.

The port of Barákè, or Nelkunda, is much frequented on account of the pepper and betel which may be procured there in great quantities [224]. The principal Imports are

Χρήματα πλεῖστα, - -	Great quantities of specie.
Χρυσόλιθα, - - -	Topazes.
Ἱματισμὸς ἁπλῆς ἐ πολύς, -	A small assortment of plain Cloth.
Πολύμιτα, - - - -	Fine Cloths, of different colours?
Στίμι, - - - -	Stibium for colouring the eyes.
Κοράλλιον, - - - -	Coral.

[221] Διὰ δὲ τὸν ποταμὸν ἅλματα καὶ διάπλως ἔχει ἐλαφρὰς. It does not appear what ought to be substituted for ἅλματα. Stuckius proposes τέλματα loca cænosa, mud banks; but this does not accord with ἐλαφρὰς.

[222] In Capt. Hamilton; and it is remarkable that Marco Polo says, the ships of Mangi (China) that came here, loaded in eight days, or earlier, if they could, on account of the danger of the anchorage. Lib. iii. c. 26.

[223] Ὄφεις . . . δρακοντειδεῖς τὴν κεφαλήν. What is the distinction between ὄφις and δράκων? It seems here, *crested*.

[224] Διὰ τὸν ὄγκον καὶ τὸ πλῆθος τῆ πεπέρεως καὶ τῆ μαλάβαθρου.

Ὕαλος[225] ἀργὴ, - - -	White glass.
Χαλκὸς, - - - -	Brass.
Κασσίτερος, - - -	Tin.
Μόλυβδος, - - - -	Lead.
Οἶνος ἐ πολὺς, - - -	A small quantity of wine[226]; but as profitable as at Barugáza.
Σανδαράκη, - - - -	Cinnabar.
Αρσενικόν, - - - -	Orpiment.
Σῖτος ὅσος ἀρκέσει τοῖς - -	Corn, only for the use of the
περὶ τὸ ναυκλήριον, - -	ship's company. The merchants do not sell it.

The Exports are,

Πέπερι[227] μονογενῶς ἐν ἑνὶ τόπῳ τούτῳ γεννώμενον[228] πολὺ καὶ λεγόμενον Κοττοναρικόν, -	Pepper, in great quantity, which grows only in this one place, and which is called the Pepper of Cottonara.
Μαργαρίτης ἱκανὸς καὶ διάφορος,	Pearls, in quantity and quality superior to others.
Ἐλέφας, - - - -	Ivory.
Ὀθόνια Σηρικὰ, - - -	Fine silks.
Νάρδος[229] ἡ γαπανικὴ, - -	Gapanick spikenard: it is usually read Gangetick.

[225] Rendered by Hudson, Vitreum rude; but ἀργὴ, *white*, is added to it, to distinguish it from vitrum in general, which was blue.

[226] Σώσει δὲ τοσοῦτον ὅσον ἐν Βαρυγάζοις. Hudson has omitted this. The meaning here given is conjectural.

[227] Pepper, from the wealth it brings into the country, in Sanscrit is called, *the Splendour of Cities*. Paolino, p. 356.

[228] I think γεννώμενον implies, the native growth of the country: it may signify only procurable there.

[229] Νάρδος ἡ γαπανικὴ. There can be little doubt of the corruption here; because, at

Μαλάβαθρον, - - - -	Betel.
ἐκ τῶν ἔσω τόπων,	from the countries farther to the east.
Λιθία διαφανὴς παντοία, - -	All sorts of transparent or precious stones.
Ἀδάμας, - - - - -	Diamonds.
Ὑάκινθος, - - - - -	Jacinths. Rubies.
Χελώνη[230] ἥτε Χρυσονησιωτικὴ καὶ ἡ περὶ τὰς νήσες θηρευομένη τὰς προκειμένας αὐτῆς τῆς Λιμυρικῆς, - - -	Tortoise shell, from the Golden Islands (either Khrusè? or Maldives?); and another sort, which is taken in the islands which lie off the coast of Limúrikè (the Lackdives).

The particulars of these cargoes suggest some reflections of curiosity; for the bullion or specie employed in the purchase of the native commodities, has formed a subject of complaint in all ages, as if Europe were exhausted of the precious metals, and all the riches of the world absorbed by Oriental commerce: the fact is true, that this trade cannot be carried on without bullion; for all the revenues of the country, now in the hands of the East India Company, are not sufficient to cover the investments annually made. Still Europe[231] is not exhausted, but increasing daily in wealth and power, compared with the other quarters of the world, and never can be, till the industry pro-

p. 36. the author himself writes Γαγγιτικὴ Νάρδος, the spikenard procured at the Ganges; and there it is still procurable from Thibet, according to Sir Wm. Jones and Dr. Roxburgh. Asiatick Researches.

[230] Salmasius supposes Χρυσονησιωτικὴ to refer to Khrusè the Golden Island, or Chersonese, in Ava.

[231] See Harris's Discourses on the East India Trade, vol. i.

moted by this commerce, and by commerce in general, shall be annihilated.

Tin is another of the articles enumerated; and if we find this produce of Britain conveyed to Malabar in the earliest period that history can reach, we find the spices of Malabar in Britain, in an age when the course of the communication with India was probably as little known as the existence of America. The venerable Bede[232], who died in the year 735, was possessed of pepper, cinnamon, and frankincense. Did no one ever ask the question, how, in that age, these luxuries had been conveyed to Britain, or were treasured in a cell at Weirmouth?

But the particular most worthy of remark, is the mention of fine silks [ὀθόνια Σηρικὰ]; for othonion is any web of a fine fabric, and as applied to cotton signifies muslin; but its usage in this passage, joined with *Sêricon*, plainly indicates the manufacture of the Sêres, which is silk. It is mentioned more especially at this port, and particularly distinguished as not being a native commodity, but brought hither from the countries farther[233] to the east. This is a sufficient proof that Nelkunda was in that age, what Calicut was in later times—the centrical mart between the countries east and west of Cape Comorin; and we want no other evidence to prove, that the intercourse between India and the countries beyond the Bay of Bengal, was open in that age, and probably many ages prior, as well as in the time of Ptolemy. That the fleets which went to Khrusè, or

[232] Bedæ Opera, p. 793. Appendix, and p. 808. Alfred, who is said to have sent Sighelm, bishop of Shirbourne, to Malabar, began to reign in 872.

[233] Φέρεται ἐκ τῶν ἔσω τόπων ἐς αὐτήν.

the Golden Chersonese, would find the silks of China in that market, is readily admitted; but that the Sêres were still farther east, is manifest, from the map of Ptolemy, as well as from Pliny, who calls them the most eastern nation of the world. Now that the ancients always meant China Proper by the term Sêres, however obscure their notions of it were, seems to admit of proof. Silk came into the Roman world usually by the route of Tartary, the Caspian, and the Euxine sea; and when Justinian procured the silk-worm, he procured it by this northern channel. This communication however, on the north, could not be opened with the nations of the Golden Chersonese, with Ava, Pegu, or Siam, but is expressly marked as formed immediately with the Sêres themselves. The point fixed for the meeting of the traders from the west with those of the Sêres, was in Tartary, and farther to the [234] north-east than the sources of the Ganges; and this point, fix it where we please, is perfectly in correspondence with the Kiachta of our own days, where the commodities of the Chinese and Russian empires are exchanged. The jealousy of the Sêres in regard to strangers, remarked by Pliny [235], is perfectly characteristic of the Chinese in all ages; and whether the communication took place near the Chinese frontier, or in any place nearer to the west, it equally proves that there were Sêres on the north, as well as the south; and that there was one communication opened by the intervention of Tartary, and another by sea, through the means of the nations in the Golden Chersonese. We shall find some intimation of this commerce on

[234] Ptolemy, VIIth Table of Asia.

[235] Pliny mentions this twicē; lib. vi. c. 17. and cap. 2, 3. In the first, it is the communication by land; in the second, it is from the information of a native of Ceylon.

the north (wild and fabulous as the account is) at the conclusion of the Periplûs, and in the catalogue of articles now under consideration, the communication by sea is equally manifest. Whether this intercourse by sea was direct, or only by the intervention of the nations of the Chersonese, is another question; but on this subject more will be said in its proper place. It seems natural, however, to suppose, that there always was a Malacca, or some port that represented it, where the trade from China met the merchants from India; as the commerce of India met the traders of Arabia and Persia at Calicut, or some port on the coast of Malabar. In this state of things, the Portuguese found the commerce of the Oriental world; and in a state very similar, it seems to have existed in the age of the Periplûs. This affords us a rational account of the introduction of silk [236] into Europe, both by land and sea; and thus by tracing the commodities appropriate to particular nations, or climates, we obtain a clue to guide us through the intricacies of the obscurest ages.

One circumstance respecting the Malábathrum, which I have supposed to be the Betel, remains still to be considered: it is said to be brought here from the countries farther [237] east, and not to be a native commodity. Pepper, and pearls, and ivory, and spikenard [238], are likewise said *to* [239] *be brought* here, as well as silk; all which contribute to ascertain this port as the repre-

[236] Silk was not a native commodity or manufacture of India in the 16th century; it still came from China. Cæs. Frederick; Purchas, vol. iii. p. 1708.

[237] Ἐκ τῶν ἔσω τόπων, Again; I have no doubt but that the sense here given is the right one.

[238] The Areka nut is mentioned as an export at Cananoor, the next port by Cæs. Frederick, p. 1707. Purchas, vol. iii.—a fruit the bigness of a nutmeg, which they eat with the leaf, called Betle. And lime of oyster-shells, pepper, cardomum, and ginger, are also mentioned. Within land is the Kingdom of Pepper.

[239] Φέρεται.

sentative of Calicut in that day, and Pandíon to have enjoyed all the revenues arising from the commerce of India and Europe. Could it then be proved that the hundred and twenty ships which Strabo saw[240] at Berenikè, actually reached India by a coasting voyage before the monsoon was discovered, we can see a reciprocity of interests, which might very easily induce Pandíon to send an embassy to Augustus. Another Indian embassy is said, by Strabo, to have been sent to the same emperor by Pôrus; and this Pôrus is supposed, in Indian history, to be the sovereign of Agimere—the Rana, or principal of the Rajpout[241] rajahs. Now, were it possible to connect his interests with those of Guzerat, we might prove, that the trade carried on at Barugáza and Nelkunda was of such importance, as to make an intercourse necessary between these two Indian potentates and the emperor of Rome. If an Indian history of these early times should ever be obtained that possessed a degree of consistence or probability, some light might be thrown on this subject; at present it is mere conjecture and speculation.

I cannot quit the contemplation of this catalogue, however, without adverting to the last article on the list, which is the tortoise-shell procured from the Golden Isles, and the isles that lie off the coast of Limúrikè. The first, if not the Maldives, are Khrusè; but the latter are the Lackdives: both are still famous for producing the best tortoise-shell, and particularly the black sort[242], the finest in the world, which is found only here, or at the Philippines, and obtains an higher price than any that is procured elsewhere. But if the Maldives are

[240] Strabo, lib. xv. p. 686.
[241] Rennell's Mem. last ed. p. 230.
[242] Harris, vol. i. p. 716. Purchas, vol. iii. 1666.

dubious, the Lackdives do actually lie off the coast of Canara or Limúrikè; for though the bulk of them is to the southward, the [243] northernmost of the group is nearly in the latitude of Mangaloor; and the market where the tortoise-shell was procured, was Nelkunda. This one circumstance might have convinced d'Anville, if he had attended to it, that Limúrikè must be Canara, and could not correspond with Concan; for there are no islands on that coast, where any quantity of tortoise-shell could be obtained, sufficient to be considered as an article of general commerce.

This extent and value of the cargoes at Nelkunda, either carried out or brought home, is of greater amount than we have found at any other port, and more circumstantial than at any other except Barugáza. This appears correspondent to the course of the trade at present, but still more to the early commerce of the English, when their original factories were at Surat and Tellicheri. At Surat they obtained muslins, chintz, and cottons; and at Tellicheri, pepper and cardamums: for though the Portuguese multiplied their forts and settlements, the different productions of the north and south, on this western coast of the peninsula, were obtainable with sufficient facility at these two points. In conformity with this system we find, that throughout the whole which the Periplûs mentions o India, we have a catalogue of the imports and exports only at the two ports of Barugáza [244] and Nelkunda [245], and there seems

[243] See Rennell's corrected Map, and d'Anville's.

[244] That is, Guzerat and Malabar Proper. See the As. An. Reg. 1803. Miscel. p. 86. The commerce on the western side of India centered at Surat north, and at Calicut south, from the time that the Portuguese came to India to within a few years at the close of the last century: it was, during the whole of that period, chiefly in the hands of the Moors, *i. e.* Arabs.

[245] The East India Company at present purchase 8000 candies of pepper, 680 *lb.* per candy, at 130 or 140 rupees per candy. As. An. Reg. 1803. Miscel. 91. 140,000*l.*

to be a distinction fixed between the articles appropriate to each. Fine muslins, and ordinary cottons, are the principal commodities of the first; tortoise-shell, pearls, precious stones, silks, and above all, pepper[246], seem to have been procurable only at the latter. This pepper is said to be brought to this port from Cottonara, generally supposed to be the province of Canara[247], in the neighbourhood of Nelkunda, and famous[248] to this hour for producing the best pepper[249] in the world, except that of Sumatra.

The pre-eminence of these two ports will account for the little which is said of the others by the author, and why he has left us so few characters by which we may distinguish one from another, so as to assign them proper positions on the coast. They seem to have been little visited for the purposes of commerce; and if they were touched at only from necessity, the stay there was short, and the observations transient; but the distinction of the provinces is clear, and if it has been found possible to give these from the testimony of our author, with so

[246] The long pepper mentioned at Barugáza is an ordinary and inferior spice, more hot and pungent, with less flavour.

[247] Eli, Deli, or d'Illi, was the port frequented by the Chinese for pepper in M. Polo's time. Lib. iii. c. 26.

[248] In the Sunda Rajah's country, adjoining to Canara, is the best pepper in India. Capt. Hamilton's Acc. of E. India, vol. iii. p. 260. and Fryar, p. 163. Chiefly sold inland, but brought to Europe by the name of Carwar pepper.

[249] Al Edrissi mentions pepper as growing only in Culam-meli (an island below Subara), and at Candaria, and Gerabtan. What Gerabtan is, I know not; but Candaria may mean the kingdom of Canara, p. 61; because he says afterwards, it is near the mouth of a river in Manibar—Malabar, p. 65; but it is not precise. Al Edrissi derives this from the Arabs of Renaudot, p. 9. p. 16. where it is written Kaucam-mali, and Kamkam; the same as Kemkem, or Concam; and Kaucam-mali is therefore Concan of Mala-bar, adopting Malabar for the whole coast, as is still in usage. But if Al Edrissi has not copied from others, Culam-mali is Coulan of Malabar; and Coulan is still a port of Travancore, where pepper is obtained. His styling this an island, is consistent with the usage of Arabian writers.—M. Polo mentions Coulam, or Covalam, with the same pre-eminence. See infra.

much precision as to prevent future deception, we shall not hereafter see the same place assigned to Guzerat by one author, and to Malabar by another; one of whom must be in an error of seven hundred miles. In limiting the provinces, and marking a few of the principal marts, all has been done that could be expected by those who are acquainted with the work; and if conjecture has never been resorted to, but where proof was unattainable, blame ought not to attach, because the discussion of impossibilities has been declined. I have said that it was dubious whether the author himself had ever been farther than Barugáza; but so many corroborating circumstances have come out in tracing the account of Nelkunda, that I would now rather fix the limit of his voyage at this port. Farther than Ceylon he *certainly* was not; and whether the fleets from Egypt ever reached that island previous to the embassy from the king of that country to Claudius, is highly problematical. Individuals possibly might have been there upon an adventure, but the amplifications of Pliny and Ptolemy manifestly bespeak an ignorance of the truth in their age; and if the voyage was not regularly performed, the knowledge of individuals was either not reported, or not believed.

XI. HIPPALUS AND THE MONSOON.

THERE is an additional reason for believing that the regular course of trade terminated at Nelkunda, which is, the introduction of the discovery of the monsoon [250] by Hippalus at this

[250] See Hackluyt, ii. 280. See also, tom. i. who has a journal of the two M. Gentil monsoons on the coast of the Carnatic, at Pondicheri.

place. And for this place I have reserved the discussion of that subject, because, though I shall continue my inquiries as far as Ceylon, I am persuaded that the author of the Periplûs went no farther than this port.

The history of this I shall give as nearly as possible in the words of the author:

"The whole navigation, such as it has been described from "Aden[251] and Kanè [to the ports of India], was performed "formerly in small vessels, by adhering to the shore, and fol- "lowing the indentures of the coast; but Híppalus was the "pilot who first discovered the direct course across the ocean, "by observing the position of the ports, and the general ap- "pearance[252] of the sea; for at the season when the annual "winds, peculiar to our climate[253], settle in the north, and "blow for a continuance upon our coast from the Mediter- "ranean; in the Indian Ocean the wind is constantly to the "south-west; and this wind has in those seas obtained the

[251] Arabia Felix.

[252] Σχῆμα.

[253] Ἀφ' ἧς καὶ τοπικῶς ἐκ τῆ Ὠκεανῆ φυσώντων τῶν κατὰ καιρὸν τῶν παρ' ἡμῖν Ἐτησίων, ἐν τῷ Ἰνδικῷ Πελάγει Διόδοτος φαίνεται.

Some doubt will remain whether this passage is accurately rendered; for the antecedent to ἀφ' ἧς is not clear; and the term Ὠκεανῆ may be thought improperly applied to the Mediterranean; but it seems used in opposition to Πελάγει, and by being joined with the Etesians that blow [παρ' ἡμῖν] in *our* country, all ambiguity is removed. I will not vouch for the Greek of our author, in the usage of Ὠκεανῆ, because I think his language frequently incorrect, or his text corrupt; but the general sense of the passage is sufficiently clear. The Etesian winds blow during the summer months in Egypt; and the south-westerly monsoon, in the Indian Ocean, is in its full vigour during June, July, August, and September. If then we suppose the author to be a native, or a resident at Alexandria, the Etesians παρ' ἡμῖν, represent the effect of them where WE live, and τοπικῶς φυσώντων, the blowing of the winds which WE locally experience. I render ἀφ' ἧς from the time or season, common both to the Etesians and Monsoons; and I do not join φαίνεται to προσονομαζέσθαι, with Salmasius, though I suppose that a connecting particle is wanting. See Plin. Exercit. 1186.

" name of Hippalus, from the pilot who first attempted the pas-
" sage by means of it to the East.

" From the period of that discovery to the present time,
" vessels bound to India take their departure, either from Kanè
" on the Arabian, or from Cape Arômata [Gardefan] on the
" African side. From these points they stretch out into the
" open sea at once, leaving all the windings of the gulphs and
" bays at a distance, and make directly for their several des-
" tinations on the coast of India. Those [254] that are intended
" for Limûrikè waiting [255] some time before they sail; but those
" that are destined for Barugáza or Scindi, seldom more than
" three days."

This account naturally excites a curiosity in the mind to inquire, how it should happen, that the Monsoons should have been noticed by Nearchus, and that from the time of his voyage, for three hundred years, no one should have attempted a direct course, till Hippalus ventured to commit himself to the ocean. It has been sufficiently proved, that a communication was open between India and Arabia previous to the age of Alexander; and it is impossible to conceive, that those who lived either in India or Arabia, should not have observed the

[254] Καὶ τὸ λοιπὸν παρεπιφέρου πρὸς ἴδιον δρόμον, ἐκ τῆς χώρας ὑφ' ηλοὶ διὰ τῆς ἔξωθεν γῆς παραπλέουσι τὰς προειρημένας κόλπους.

The general sense of this passage is clear; for ὑφ' ηλοι, and ἐφ' ὑφῆς, are used by this author to express sailing in the open sea; but how to understand διὰ τῆς ἔξωθεν γῆς is dubious.—Hudson renders it, ex regione excelsi per terram externam supradictos sinus prætervehuntur; where *per terram externam* is quite as unintelligible as διὰ τῆς ἔξωθεν γῆς, and *ex regione excelsi* certainly does not express the meaning of the author.

[255] Τραχηλίζοντες, if it be not a corruption, has no sense in the lexicons which can apply to this passage. The meaning by the context is plain; but how to elicite it from this word, I know not. Hudson has very wisely omitted it.

A learned friend renders Τραχηλίζοντες, *with their heads to the sea*; ready to sail, but not sailing.

regular change of seasons and of winds, which recurred every year, and of which, if they were mariners, they could not fail to have taken advantage, every voyage they performed. It is likewise certain, that vessels frequenting either coast would accidentally be caught by either monsoon, and driven across the open sea to the opposite shore, if they happened to be a few days too early, or too late, in the season, for the voyage in which they were engaged. That this had happened, and that there was a direct passage by the monsoons in use between the opposite continents before the Greeks adopted it, has already been noticed from the Periplûs, and fully proved. But in almost all discoveries, the previous obstacle is minute, and the removal of it accidental: thus it is, we may suppose, that the few vessels which did find their way to India from the ports of Egypt by adhering to the coast, from the beginning, sailed with the monsoon, both outward and homeward bound; but still followed the track which had been pointed out by Nearchus; and it was necessary for an Hippalus to arise, before it should be known, that the winds were as regular and determinate in the open sea, as upon the coast. The Periplûs assigns the merit of the discovery to the observation of Hippalus himself; but there is nothing unreasonable in supposing, that if he frequented these seas as a pilot or a merchant, he had met with Indian or Arabian traders, who made their voyages in a more compendious manner than the Greeks; and that he collected information from them, which he had both the prudence and courage to adopt. Columbus owed much to his own nautical experience and fortitude; but he was not without obligations to the Portuguese also, who had been resolving the great

problems in the art of navigation, for almost a century previous to his expedition.

But the discovery of the monsoon once made, could never afterwards be neglected; and the use made of it by the fleets from Egypt is fully detailed, and much in the same manner by Pliny and the Periplûs. The course of the trade from Alexandria to Berenikè, and the progress of the voyage from Berenikè to Okêlis and Kanè, have already been sufficiently described[256]; but there are some farther circumstances connected with this, which cannot be suppressed without prejudice to the object in view. For Okêlis is mentioned by both authors[257] as the better port to remain at; which is evidently consistent, because it is sheltered from the adverse[258] monsoon; and the passage of thirty days to Okêlis, and forty to the coast of India, is a proportion so striking, that it could be derived from no other source but evidence of the most authentic nature. For the first distance is only about four hundred and eighty miles, and the second near nineteen hundred, and yet that there should be only ten days difference in the longer part of the voyage, is peculiarly appropriate to the two different seas in which the navigation was to be performed. The vessels destined for India left Berenikè about the middle of July, or earlier, if they were to go farther than Barugáza. The passage down the gulph was tedious; for though the wind was favour-

[256] See Kanè, supra.

[257] Plin. lib. vi. c. 23.

[258] The Immaum finding Aden to lie inconvenient for the trade of the Red Sea, because of the fresh winds usually blowing at its mouth in both easterly and westerly monsoons, made him remove the trade about 15 leagues within its mouth, to a fishing-town called Mocha. Capt. Hamilton's Acc. of the East Indies, vol. i. p. 19. That is, it is safer riding within the straits than without.

able, the shoals, islands, and rocks, in their course, required caution, and compelled them to anchor every night; but when the straits were passed, and a vessel was once within the influence of the monsoon, she had nothing to impede her course from Bab-el-mandeb to Guzerat; consequently, forty days allotted to her passage is neither disproportionate to her course down the Red Sea, nor too short[259] a space for performing a voyage of nineteen hundred miles to India, notwithstanding the same run at present seldom exceeds fifteen. It seems at first sight a contradiction, that vessels which were to have the longer voyage to Malabar, should remain longer at Okêlis than those which were destined only for Scindi or Guzerat; but this likewise depends upon a circumstance peculiar to the monsoon upon the coast of India, which appears never to have been noticed by those who have undertaken to comment on the Periplûs.

It is sufficiently known, that the commencement and termination of the two different monsoons are subject to considerable fluctuation; so that though we say these winds are alternate, six months each way, we ought to subtract one month from the beginning and ending of each, which are not only fluctuating, but tempestuous. If then we examine the south-westerly or summer monsoon[260] in this respect, and consider

[259] Nineteen hundred miles in forty days, gives rather more than forty-seven miles a day; but the day's sail of an ancient vessel was 500 stadia, or fifty miles; and the course of a νυχθήμερον double; so that they must in this passage have sailed with great caution. But the Arabs, in the ninth century, employed thirty days from Maskat; whence we may conclude, they had not much improved upon the Greeks. See the Arabs of Renaudot.—This run should properly be taken at Gardefan.

[260] The whole of this is from the Oriental Navigator, p. 211.

May as the month in which it commences, it is not finally settled till the beginning of June, a little earlier or later, according to the full or change of the moon[261]; and still it is to be observed, that during June and July "the weather is so bad, "that navigation is in some degree impracticable." In August it is more moderate, and in September the weather is still fairer; and though there may be an apprehension of storms, "you have often fair weather for several days together," which continues, though liable to the same interruptions, till the middle of October.

This is the peculiar circumstance appropriate to the navigation of the ancients; for if we suppose a vessel to leave Berenikè on the 10th of July, and to arrive at Okêlis the 9th of August; after continuing there a week, ten days, or a fortnight, she will reach Muziris or Nelkunda, at latest, on the 1st of October; that is, at the very time when she has reason to expect the best weather of the season.

There is another singularity applicable to those vessels which are destined for Scindi and Barugáza, and which stay only three days at Okêlis or Cape Gardefan; that is, that the south-west monsoon sets in "earlier to the northward of Surat," than on the coast to the southward. Whether this circumstance is connected with their voyage, we have no data to determine; but if the monsoon commences here earlier, it is consequently settled earlier than in Malabar.

After thus conducting our fleet to the shores of India, it remains next to consider their voyage homeward-bound. And

[261] The first new moon in September is called St. Anthony's Moon, and considered as the commencement of the N.E. monsoon. C. Hamilton, vol. i. p. 255.

here we are informed by Pliny[262], that they continued on the coast from the latter end of September, or beginning of October, to the early part of Tybi, or December. This allows two months, at least, for the disposal of their cargo, and taking in their lading in exchange. But the latest time of leaving the coast is within the first six days of Machiris; that is, before the ides of January, or the 13th of that month. Now it is very remarkable, that the original order for the fleets of Portugal was subject to the same regulation; for if they did not sail before the 8th[263] of December, they were detained till the first week of the succeeding month. The reason for this, though not mentioned, is doubtless the change of the moon in both instances, at which time there are usually some stronger gales; and in this we have one more evidence of the same operations of nature producing the same effects in all ages.

Pliny styles the south-west monsoon, Favonius (which the Periplûs calls Libo-Notus), and the north-east, Vulturnus; about which there is much learned disquisition in Salmasius. But we are now too well acquainted with these seas, to have a doubt remaining on the winds that were intended; and we conclude, that as the same causes have operated in all ages, they blew two thousand years ago as they blow at the present day. Not that they are fixed to a single point of the compass, but that north-east and south-west are their general direction. It is added by Pliny, that upon reaching the Red Sea, they found a south or south-west wind, which conveyed them to Berenikè, and enabled them to conclude their voyage in less than the compass of a year. This, likewise, is consistent with ex-

[262] Lib. vi. c. 23.
[263] Cæsar Frederick in Purchas, iii. p. 1708. who likewise mentions their arrival in September.

perience; for the winds in the Gulph of Arabia are almost constantly north and north-west, except for fifty days, when they are called the Gumseen[264] winds, which prevail from the middle of March; during that period coming regularly from the south. If therefore we suppose a vessel to leave the coast of India between the 8th and 13th of January, forty days employed upon her return would bring her to Kanè, Aden, or Gardefan, towards the end of February. At any of these ports she might wait, so as to be prepared to take advantage of the Gumseen wind in the middle of March; and when she was once within the straits, this wind would serve her for fifty days to convey her to Bereníkè, to Myos Hormus, or even to Arsinoè, the representative of the modern Suez. Thus, by embracing the opportunities which the regular seasons in the different seas afford, the whole voyage outward and homeward-bound would be performed with a wind constantly in her favour.

The next point to be considered is, the departure of this fleet from Okêlis, Kanè, or Cape Arômata. The two last are more particularly intimated by the Periplûs; and Suágros, or Fartaque, by Pliny[265]. In this the merchant is most probably the more correct of the two; for, as we may conclude that he performed the voyage himself, so is Arômata, or Cape Gardefan, the point that divides the limit of the monsoon on the coast of Africa: for, on the authority of Beaulieu, we learn, that he passed from winter, storm, and tempest, to calm and summer, in an instant, on doubling this promontory. Here then was

[264] Written Khâmsin.

[265] Pliny says, it was 1333 miles from Suagros to Pátala; which is not very distant from truth, for it is in a right line near 1200 miles.

the point where their course was open before them, from one continent to the other; and when they were once at sea, there was nothing to change the direction of the wind till they reached the shores of India. On their return from India, they ran down their longitude first to the coast of Africa, tending to an object of magnitude which they could not miss or overrun; and then made good their latitude by coming up northward to the coast of Barbaria and the Red Sea. In effecting this we may conclude, that they directed their course, as nearly as they could calculate, to Arômata; but Ptolemy informs us, they sometimes got to the southward of it, and were carried much lower down than they wished; and sometimes we know that they came intentionally to Rhapta, Opône, and other marts on the coast of Africa, and proceeded afterwards to Arabia, or the Red Sea, according to their destination, interest, or convenience.

The commerce of the Arabians has arrested our attention throughout the whole progress of our inquiry, from the first mention of their imports in scripture, to the accounts of the present day. Their connections with the countries in their neighbourhood is equally obvious: in Syria, Palestine, Egypt, Persis, Mesopotamia, and on the Tigris, we find them noticed by Pliny[266]; in India, by Agathárchides, and almost every subsequent geographer; in Africa, they are spread at this day from the Red Sea across the whole continent to Senegal; and in the Eastern Ocean they are found upon every coast, and almost upon every island. But general as the extension of

[266] Lib. xii. 17.

their name and nation may have been, when we refer to their own accounts, nothing is more obscure[267]—nothing less satisfactory. The information to be collected from the little tract of the Periplûs is a picture of geography, in comparison of the two Arabian narratives published by Renaudot, of Ebn Haukal, or Al Edrissi; besides all the fabulous and the marvellous which we have to remove. Still there are some particulars in these authors already noticed, which are worthy of attention; and something in the Arabians of Renaudot peculiarly connected with the object of our inquiry; for the general fact, that the Indian commerce had settled at Siraf in the ninth century, is a revolution of importance.

Siraf[268] is upon the same coast in the Gulph of Persia as the modern Gomroon, and held the same rank at that time as Keish in the thirteenth century, and Ormus of a later date. The merchants of Siraf, in that age, evidently performed the voyage to China, and Chinese ships are mentioned at Siraf; but a closer examination has induced me to believe[269] that they were not Chinese, but vessels employed by the Siraf merchants in the trade to China. The trade from this port, however it extended farther to the east, certainly met the Chinese fleets on

[267] They are obscure, not only from the want of longitude, latitude, and the direction of the coasts, but likewise from their adopting names that are neither native or classical, but terms of their own language and usage.

[268] It is written Shiraff, Sharraf, and, by M'Cluer, Charrack, pronounced Sharrack.

[269] In the port of London, a China ship is a ship destined for China; and in this sense, perhaps, the Arab says, that most of the Chinese ships take in their cargo at Siraf. He describes their passage dowa the gulph to Mascat; and upon mentioning the straits at Mussendon, he adds, "after WE are clear of these rocks, WE "steer for Oman and Maskat." I conclude from this, that the narrator actually sailed himself on board a Siraf ship for China, and in that sense called it a Chinese ship. P. S. Eng. ed. I do not, however, think this proof so conclusive, as utterly to deny the navigation of the Chinese west of Malabar.

the coast of Malabar; for there it is mentioned, that the Chinese paid a duty of a thousand [270] drams, while other vessels paid no more than from one dinar to ten.

But the ships that sailed from Siraf went first to Mascat in Arabia, for the same reason that the fleets from Egypt took their departure from Kanè and Arômata; that is, because they obtained the monsoon the moment they were under sail. The Arab has fortunately preserved this circumstance; for he says, "from Mascat to Kaucammali is a month's [271] sail, *with "the wind aft.*" Here then we have an evidence of the monsoon, and of the passage direct from one coast to the other, in harmony with the Periplûs: we have a passage of thirty days from Maskat, proportionate to the forty days from Gardefan; and whatever Kaucam may be, we find in Mali a reference to Malè and Malabar, in which we cannot be mistaken. Al Edrissi, who copies this passage from the Arabs, writes the name [272] Kulam-meli; so that between the two authorities we may possibly discover Kulam on the coast of Malabar; and on that coast, in the kingdom of Travancore, there is still the port of Coulan [273], about eighty miles below Cochin; and another

[270] Two Arabs. P. 9. Eng. ed. The sum is too small to be credible; 10,000 dinars are equal to 1*l.* 17*s.* 6*d.* De Sacy, p. 332. According to Niebuhr, Arabie, Amsterd. ed. p. 87. a dirrhem is the fifth part of a rupee, and a dinar is = 10 dirrhems.

[271] The Arabs had not much improved upon the Greeks in the art of Navigation.

[272] The difference of Kaucam and Kulam may be reconciled by supposing the translators misled by the want of the diacritical points; a difficulty which occurs to all translators in rendering proper names. Compare the Arabian Journal, p. 9. with Al Edrissi, p. 61. and p. 37. where Culam-meli is characterized as the Island (that is, the country) which produces pepper. Half the islands of the Arabian geographers are upon the continent.—Compare it also with Abilfeda, who calls it Caulam, the last port of India, where pepper is procured. Lat. 8. Melch. Thevenot, vol. i. p. 22.

[273] I am convinced by Cesar Frederick that it is the first Coulan, previous to C. Comorin. See Hackluyt, ii. 224. 72 miles from Cochin.

Al Coulam est ultima regio Orientis quæ

Coulam [274], or Coualam, to the eastward of Cape Comorin. Either of these may be the port intended by the Arabian Journal, as it informs us, that "after watering here, you begin "to enter the sea of Harkand," that is, the ocean to the south of Comorin: and in another passage it is added, that "Kaucam "is almost upon the skirts of the sea of Harkand."

I am not certain that I can follow my author farther; but if I understand him right, it is sufficiently evident, that though they sailed by the monsoon to Cape Comorin, they did not cross the Bay of Bengal by the same wind; but after rounding Ceylon, or passing the straits of Manar, they stood on by Lajabalus [275] and Calabar (which is the coast of Coromandel), and Betuma (the same as Beit Thuma), St. Thomè or Meliapoor. This route appears circuitous at first sight, and very strange that they should cross the Bay of Bengal to the Nicobar Islands, in order to reach the coast of Coromandel; but it is the route [276] at this day in the north-east monsoon.

piper profert, solvitur ex ista ad Aden [Haden]. Abilfeda apud Melch. Thevenot, tom. ii. p. 22.

[274] This other Coulam, or Covelam, beyond Cape Comorin, is in the country of Tinevelli; but Paolino says, the first Coulan ought to be written Collam. P. 75.—The trade continued at Coulam, east of Cape Comorin, in Marco Polo's time. See lib. iii. c. 25.

[275] It is written Najabalus also, which d'Anville reads Nachabal for Nichobar. Cala-bar is Coromandel, in contrast to Malabar, commencing possibly at Calymere. Bet Thuma is the house or church of St. Thomas at Meliapoor, near Madras: Kadrange and Senef, I cannot discover; but Senef I suppose to be the Sanf of Al Edrissi, which, he says, is ten days from Sandifalat; and Kadrange may be Arracan. Sandifalat can hardly be any thing else but the Straits of Malacca; but Renaudot reads it Sandar-Pulo, and converts it into Pulo-Condor, which seems fanciful. It might be a subject of inquiry, whether Senef, Sanf, or Samf, may not be Siam. The sea opposite the coast of Coromandel is called *Mare Sanficum*, which may be the sea of Siam; but Siam extends across the peninsula, and the gulph of Siam *Proper* is on the eastern side. Al Edrissi, p. 34.

[276] See M. Gentil, tom. i. 653. who calls it the grand route. See also the voyage of the Gospel Missionaries, Magazine, No. xiii. who stretched over to Sumatra and the Nicobars, in order to reach Tranquebar. The Oriental Navigator and Forrest confirm these accounts.

From St. Thomè they cross the gulph again to Kadrange, and by Senef to Sandarfulat, which ought to be the Straits of Malacca; and thence to China. There seems to be more coasting in this voyage than in that of Ptolemy; for he carries his fleets across from some point in the Carnatic to the Golden Chersonese, at once. But if his communication terminated there, the Arabs went farther east than his Sinus Magnus, and reached Canfu [277] in China, which is the modern Canton, where they traded much under the same restrictions which Europeans experience at the present hour. After all, they confess that very few of their ships reached China; that the voyage was extremely dangerous [278], and that water-spouts and tuffons were continually to be dreaded; added to which, at the date of their narrative in 867 of our êra, the kingdom of China itself was distracted by internal commotions [279], which made it no longer safe for merchants to venture into the country.

But still it should be remembered, that the Arabians are the first navigators upon record, except the merchants of Cosmas, that penetrated to China; that they are antecedent to the Europeans in this voyage by more than six centuries; and that they had found their way to the northern [280] frontier of this king-

[277] Canfu is the Chanecu of Al Edrissi. P. 37.

[278] Between the sea of Harkand and Delarowi there are 1900 islands (Arabs of Renaudot), which include the Maldives, Sarandiv, and Ceylon, in the sea of Harkand. Arabs 2. Al Edrissi, p. 31. The danger of the voyage was increased by these, as much as by the obstacles farther east.

[279] The wars which preceded the dynasty of Sunga. Arabs, p. 41. remarks, 47.

[280] Whether actually an Arab or not, I cannot discover; but the Arab says, he was acquainted with one, who had seen a man that had travelled on foot [by land] from Samarcand to Canfu [Canton] with a load of Musk; and had traversed all the cities of China one after another. This is a proof, at least, that the communication was open between Samarkand and China; and as Samarkand, at that time, was subject to the Moslems, this traveller was at least a Mahomedan, if not an Arab. Renaudot, p. 71.

dom in the ninth century, while in the sixteenth, the Europeans were disputing whether Cathai and China were the same. We have no record of any European[281] visiting this country by a northern route before Marco Polo, in the twelfth century; nor any satisfactory account of an European[282] sailing in the sea of China between the time of that traveller and Nicola di Conti, in 1420. Barthema's voyage is between 1500 and 1504, immediately preceding the arrival of the Portuguese.

These circumstances will naturally suggest reflections in regard to the Arabs of the Desert, and the Arabs on the coast. The sons of Esau were plunderers by prescription and profession; their hand was against every man, and every man's hand against them. The family of Jocktan[283], in Yemen, Hadramaut, and Oman, were as naturally commercial; and as they anticipated the Greeks and Romans in the navigation to India, and the modern Europeans in the discovery of China, it is no more than their due to ascribe to them a spirit of commerce, enterprize, or the thirst of gain, in ages which no history can reach; and to conclude, that if the precious commodities of the East found their way to the Mediterranean, as undoubtedly they did, the first carriers on the ocean were as undoubtedly the Arabians.

Whether we are better able to understand the Greeks, or whether the Greeks are more intelligent and better informed than the Arabs, I cannot say; but Cosmas, who was never in

[281] Europeans *had* reached China, but from a different cause. Carpin found a French goldsmith at Cambalu; but he had been carried off from Poland by the Tartars, who had made an irruption into that country.

[282] See Friar Odorick, supra.

[283] Cedrenus calls them, Interior Arabians. Aman and Jektan, p. 422. Yemen and Jocktan. Τετάρτη Ὁμηρῖται οἱ καὶ ΕΜΠΟΡΟΙ.

India himself—who was a monk, and not the wisest either of his profession or his nation, is far more distinct and comprehensible in the sixth century, than the two Arabs in the ninth, or Al Edrissi in the twelfth. He gives a very rational account of the pepper trade in Malabar, and the meeting of the merchants from the East with those of Europe, from the Red Sea, and Gulph of Persia, in Ceylon, which in his age was the centre of this commerce; and he affords a variety of information, which the Arabians either did not know, or have not recorded. But we shall have recourse to him again when we arrive at Ceylon.

I have more than once noticed the Rajah, who, as Pliny informs us, attended the embassy from the king of Ceylon to Claudius, and who asserted, that his father had visited the Sêres. I once thought that this Rajah went by sea; but upon a closer inspection of the passage, it is plain that he passed by land from Bengal across the mountains called Emôdi. Still we have, upon the whole, a proof, that through the intervention of different nations, a communication was open from the Red Sea to the country of the Sêres. Whether the Sêres are Chinese, has been disputed; but that they were visited by sea, is true, if the evidence of Cosmas[284] is sufficient; and that they were approachable by land through Tartary on the north, is asserted likewise by Pliny and Ptolemy. This is a peculiarity that suits no nation but the Chinese; and if we find this fact recorded from the time that history commences, it is a strong presumption that the same intercourse took place many ages

[284] Cosmas calls them Tzinitzæ, and Tzinistæ. See Dissertation ii. infra.

antecedent to the accounts which have come down to the present time.

Whether the author of the Periplûs himself sailed with the monsoon, or by the coasts which his narrative takes in succession, he has not informed us; but if he was in India more than once, he might have tried both the different routes. His leaving this circumstance undetermined, may induce a suspicion that he was a geographer, rather than a voyager. But the same circumstance occurs in Capt. Hamilton's Account of the East Indies: he gives the ports in succession, from the Cape of Good Hope to China; yet he certainly did not visit them all in one voyage, but gives us the result of the knowledge he had acquired in all his different navigations.

For this account of the monsoons, and the effects produced by them relative to the commerce of the ancients, no apology is requisite: it is of the very essence of the design proposed from the commencement of this work, which was intended not merely as a comment on the Periplûs, but from the opportunities afforded by that journal to investigate the commerce of the East in all its branches; to trace its progress or situation in different ages, and to examine its relations, causes, and consequences, till the new êra of discovery commenced by the efforts of the Portuguese, under the auspices of Don Henry, and the great work was essentially completed by the achievements of Gama and Columbus.

We return now to the narrative of the Journal, which was interrupted at Bárakè, for the purpose of introducing Híppalus to the acquaintance of the reader, and commences again at Ela-Bakarè, altered as to its orthography, in which it now

corresponds with the Beccarè of Pliny, and the Bákarè of Ptolemy. It is now likewise augmented with the addition of Ela; in which, as has been observed, we recover the Eli of Marco Polo, and the d'Eli or d'Illi of our charts. In this passage there is mention of the Ruddy Mountain [285], and then an omission in the text, which requires examination before we can proceed. I have lately learnt that d'Illi itself is not red, but that there are red hills, or land, both to the north and south of it: the red hill to the south, lying near the sea, is that which we must prefer for the Ruddy Mountain of the Journal; and as the features of nature are indelible, it is much satisfaction to establish the consistency of the narrative upon ground so well ascertained. I consider this, therefore, as a point fixed; but I ought not to omit, that the Oriental Navigator [286] notices red cliffs much lower down, both on the north and south of Anjenga; and as we are approaching very fast to Cape Comorin, if it should appear preferable to others to assume these for the Ruddy Mountain, there is confessedly some ground for the supposition.

The omission [287] in the text may be supplied, by supposing

[285] I have received the following extracts from Capt. Henry Cornwall's Remarks on the Coast of India, 1720; the work itself I have not seen:

"Southward of Mount d'Illi, in fair weather, you may see the Dutch settlement of "Cananoor, which will bear N.E. by N. $4\frac{1}{2}$ "leagues; you bring the flag-staff N.E. by "E. about two miles off shore, and then you "will bring that peak seen over Calicut E. "by N. over a *reddish hill* by the sea-side.

"Four leagues to the southward of For-"mosa there lies a *reddish hill*, by the sea-"side." This must be a league north of d'Illi; for Formosa is five leagues from d'Illi, according to the Oriental Navigator, p. 223.

"When Mount d'Illi bore S.E. by E. "about four leagues, Mount Formosa bore "N.E. $\frac{3}{4}$ N. three leagues . . . . . Two hills "were in sight; one to the southward, and "the other northward; the land hereabouts "appearing *reddish* near the sea-side, especially "towards sunset."

[286] P. 227.

[287] Ἀπ' Ἐλαβαχαρὴ, τὸ λεγόμενον Πυῤῥὸν ὄρος, ἄλλη παρῆκε χώρα τη . . . . . κης ἡ Παραλία λεγόμενη πρὸς αὐτὸν τὸν νότον.

We may read, ἄλλη παρῆκε χώρα τῆς Παρ-

that the country of Pandíon is intended; and the sentence would then express, that after leaving Ela-Bákarè, you arrive at the Red Cliffs, and beyond them the Parália[288], or coast of the territory subject to Pandíon, which fronts the south, and where you find the town of Kolkhi, and the Pearl Fishery. By this we are to understand, that he means the southern coast beyond Cape Comorin; and so he afterwards expresses himself; for he reverts to Comorin, and then proceeds again to Kolkhi and the fishing-ground.

Ptolemy makes no mention of the kingdom of Pandíon previous to Komar; but commences the province of the Aii with Melênda and Elanki[289], and makes it terminate at Comar. This would embrace the modern Calicut, Cochin, and Travancore; and in this tract we have still an Aycotta near Cranganoor, that is, the fortress of Ai[290]. In all other respects, the division of the provinces is nearly the same in Ptolemy and the Periplûs, from Barugáza to Comar; and their want of correspondence here, is a circumstance in favour of both; for the kingdom of Pandíon is placed by both on the eastern side of the peninsula, and Módura, his capital, is the present metropolis of Mádura. If he had a territory on the Malabar[291] side, it was by conquest; and Pliny is in harmony with both: when

διονικῆς, confirmed by the following clause: Ἐν ᾗ καὶ Κολύμβησίς ἐστιν ὑπὸ τὸν βασιλέα Πανδίονα πινικῆ. But if by the text we are to understand that Elabakare itself is called the Ruddy Mountain, perhaps there is some further omission or corruption in the text. I wish to consider Ela as Mount d'Illa, and Bákarè, or Ela-Bákarè, as Ram-d'Illi, near the mouth of the river where the vessels lay; and here might be the reddish hill one league N. of d'Illa.

[288] We should naturally suppose that Paralia was a Greek term, and literally *the coast;* but Mr. Hamilton informs me, that Paralaya, in Sanskreet, signifies the *remotest region;* that is, the extreme part of the peninsula.

[289] Nelkunda and Ela.

[290] D'Anville, p. 116. Paolino, p. 86.

[291] The country of Malabar Proper could raise more than twelve hundred thousand men, according to Capt. Hamilton, i. 288.

speaking of his possessions on this side, he says, Módusa, the capital of Pandíon, was at a great distance inland.

XII. BALITA, COMAREI, KOLKHI, PEARL FISHERY.

Balita is the first place mentioned by the Periplûs after leaving the Ruddy Mountain: it is the Bam-bala[292] of Ptolemy; but we have nothing to determine its position, except the mention of its having a fine road for shipping, and a village on the coast. No representative of Calicut appears, and probably it did not then exist, nor for several centuries afterwards. The Kolkhi of the ancients has been frequently mistaken for it; but as Kolkhi is beyond Comorin, and is the seat of the Pearl Fishery, the supposition is impossible. Calicut[293] was the grand centre, for many ages, of all the Eastern and Western commerce, from its origin in 805[294] till the arrival of the Portuguese; and though its splendour is now eclipsed, it is still a place of great trade for pepper[295], cardamums, sandal-wood, and other commodities; much frequented by the vessels of

[292] There is a Tum-bala on this coast still; but whether it is ancient or modern I know not, nor whether its position would be suitable, if those points could be ascertained.

[293] We have a Mahomedan account of the settlement of the Moslems at Calicut, taken from Ferishta, and published in the India Ann. Register 1799, p. 148. Miscel. But as Ferishta was a Mahomedan himself, so does he say, he has it from a poetical account; and though it preserves the outline of Ceram Perumal's retirement, and the division of Malabar, it still contains much that is problematical, and seems a Mahomedan fiction to give the Moslems a legal settlement in the country. Subjoined to this account, however, there is a valuable note, giving an account of the kingdom of Bijnagar—its rise, power, and dissolution; and proving, that the influence of the Ram Rajah extended over Malabar.

[294] There are two dates, 907 and 805. D'Anville, Antiq. de l'Inde, p. 114.

[295] Tellicheri, an English fort and factory, was established on this coast for the purpose of procuring these articles, and Angenga.

Europe, and still more by the traders from the Red Sea, Maskhat, and the Gulph of Persia. These are circumstances too well known to be insisted on; and we must proceed to Comar, no less conspicuous in its situation at the apex of the peninsula, than in the preservation of its name through so many ages, and so many revolutions both of commerce and of empire.

At Komar there was an harbour and a fortress, with a garrison: there was likewise some religious establishment, in which those who dedicated themselves to the worship of the presiding deity first consecrated themselves by ablutions, and then entered into an engagement of celibacy. Women partook of this institution as well as men; and the legend of the place reports, that the goddess to whom their services were dedicated, used formerly to practise the same ablutions monthly at this consecrated spot.

The name of the place, according to Paolino [296], is derived from Cumari, a virgin deity, the Diana and Hecatè of the Hindoo mythology. The convent [297], he adds, still exists, and the same superstition is practised at a mountain three leagues inland, where they still preserve the tradition of Cumari's bathing in the sea. The Sanscreet name, he adds, is Canyamuri, *Cape Virgin*, but contracted by the natives themselves

[296] Cumari, he informs us, signifies a virgin; but Comr is the moon, in Arabic; and Diana (as Phœbe) is the goddess of the moon, the sister of Phœbus. Whether Comr has such a meaning in Sanscreet, or the goddess such an attribute in Hindoo mythology, may be inquired.

[297] The religious of this sort, he says, are called Jogi, *coenobites*; or Go-suami, *lords of the cow*, from their superstition relative to that animal; or Samana, *inoffensive*, because they deprive no creature of life. (These are the Germanai of Strabo.) They live in convents under a superior, sleep on the ground on mats of palm-leaf, and communicate little with the world.

into Comarì, or Cumarì. He mentions also a small port here, conformably to the account in the Periplûs; and a church, founded by St. Xavier, on a mountain close to the sea, which, report says, is dedicated to the Virgin Mary; but on this head the good Carmelite is silent, and I know not whether the report be true.

Circumstances so correspondent, at the distance of two thousand years, could hardly be found in any country except India; and to the local knowledge of Paolino we are much indebted. He has reprobated, indeed, all literary men, who presume to determine questions in their closet relative to countries which they have never visited; but though I and others, who pursue our studies in retirement, owe him something in return, I shall revenge myself by no other method, but by citing a beautiful passage from his work, descriptive of the Parália[298], or Coast of Malabar. Paolino, on his return to Europe, had embarked in a French frigate called the Calypso; and while he is pursuing his course between Cochin and Cape Comorin, he bursts out into a rapturous description of the scenery presented to his view:

"Nothing[299] can be more enchanting to the eye, or delicious "to the senses, than is experienced in a voyage near the ex- "tremity of the peninsula. At three or four leagues from the "coast, the country of Malabar appears like a theatre of ver- "dure: here a grove of cocoa-trees, and there a beautiful river "pouring its tribute into the ocean, through a valley irrigated

[298] Paolino is mistaken in supposing Paralia to be confined to the Pearl Fishery: it extends the whole way from Elabákarè to the Fishery, and is literally the coast of Malabar, in contradistinction to Paralia Soringorum, the Coast of Coromandel.

[299] P. 371.

" and fertilized by its waters. In one place a group of fishing-
" vessels, in another a white church[300], peering through the
" verdure of the groves; while the gentle land-breeze of the
" morning wafts the fragrance exhaled from the pepper, car-
" damum, betel, and other aromatics, to a great distance from
" the shore, and perfumes the vessel as she passes with their
" odours; towards noon succeeds the sea-breeze, of which we
" took advantage to speed the beautiful Calypso in the pro-
" secution of her voyage."

Our Greek and Arabian conductors have no effusions of imagination; but a picture of the country where we are, drawn upon the spot with the enthusiasm and sensibility of an Italian, will make ample atonement for the digression. I need not add, that during the north-easterly monsoon, a voyage on the whole coast is effectually a party of pleasure.

We are now to proceed to Kolkhi and the Pearl Fishery, in regard to which Paolino is much displeased that none of the geographers have agreed[301] in placing Kolkhi at Coléchè[302]. He will not allow any of us to know the least of the situation of places which we have never seen, and yet we shall build on his own premises to subvert his conclusion; for he, in conjunc-

[300] There were many churches in this country, both of the Mission, and of the Malabar Christians; but the irruption of Tippoo destroyed every Hindoo pagoda, and every Christian church, as far as he penetrated. As. Res. vii. 379.

To these Christians of St. Thomas, Alfred sent Sighelm, bp. of Sherbourne, who brought home many jewels, aromatics, &c. some of which remained long at Sherbourne. Hackluit, ii. 5.

I wish we had more authority for this than the tradition of Sherbourne, for Alfred deserves every honour which can be added to his name.

[301] In Mr. Le Beck's Account of the Pearl Fishery it is said, that the best divers are from Collish, on the coast of Malabar. I conclude that this is Colechè. As. Res. v. 402.

[302] Questa citta fu sovente confusa con Covalan, Colias, o Colis, degl' antichi, de quelli scritori . . . che non avevano essaminato il sito locale delle due citte tra se molto diverso. P. 74.

tion with all our charts, places Coléchè [303] previous to Comorin; and therefore, whether we find a representative for Kolkhi or not, his assumption must be false; for both Ptolemy and the Periplûs [304] place it, not to the westward, but the eastward of that cape. The Pearl Fishery is not now, nor ever was, carried on to the westward or northward of Cape Comorin. The centre of it has always been at Manar, or on the coast in the neighbourhood; and Manar [305] is the island of Epiodôrus, where, according to the Periplûs, the pearl oysters were only to be found; and there is the fishery at the present hour. From the mention of Epiodôrus, we may conclude a Greek of that name from Egypt was the first of his countrymen that visited this island; and where would a Greek not have gone [306], if he had heard that pearls were to be obtained? The great request in which they were at Rome and Alexandria, seems to have marked them out, not indeed as of greater value than diamonds, but as a more marketable and preferable commodity for the merchant.

The power which in different ages has presided over the Fishery, whether native, Portuguese, Dutch, or English, has regularly taken its station at Tutacorin: the Fishery itself is always on the Ceylon side of the Straits, at Chilao [307], Seewel [308], Condutchey, &c. The number of persons who assemble,

[303] Capt. Hamilton says, between the middle and west point of C. Comorin, i. 333.

[304] Ἀπὸ δὲ τοῦ Κομαρεὶ ἐκτείνεται χώρα μέχρι Κόλχων, ἐν ᾗ κολύμβησις τοῦ πινικοῦ ἐστιν.

[305] Le perle nascono vicino a Mannar. Paolino, 374. But he says likewise, there are two fisheries: one to the westward of Ceylon, in the open sea; and another east of Cape Comorin, separated by the Straits of Manar. Still Cape Comorin is to the west of both; and the island of Epiodôrus removes all doubt. P. 373.

[306] In Cœlum.

[307] See Stevens's Hist. of Persia, p. 402. He says Chilao signifies a Fishery in the native language.

[308] Mr. Le Beck's Acc. As. Res. vol. v. p. 396.

is from fifty to sixty thousand; consisting of divers, mariners, merchants, and tradesmen of every description. The Nayque of Madura, who was sovereign of the coast, and the representative of Pandíon, had one day's fishery; the Governor of Manar's wife, when the Portuguese were masters, had another day, afterwards perverted to the use of Jesuits; and the owner of the vessel had one draught every fishing-day. After the fishery was concluded, the fair was kept at Tutacorin. The brokerage and the duty amounted to four per cent.—paid by the seller. The vessels were not fewer than four or five hundred, each carrying from sixty to ninety men, of which one-third were divers. Capt. Stevens supposes the pearl of Manar to be inferior to that of Bahrein.

This fishery is likewise described by Cesar Frederick, and a variety [309] of authors. He informs us, that the divers were chiefly Christians of Malabar in his time; they are now a mixture of that description, of Roman Catholics, and Hindoos; but the superstitions practised to preserve the divers from the sharks, and other dangers of their profession, are all Hindoo. Several fanatics are well paid for their attendance during the fishery for that purpose; and the sharks are as obedient to the conjuration of a Bramin, as they could be to a Malabar priest: the charm is not always efficacious; but the priests of India, like the priests of Delphi, have a ready salvo for their failure. Those who wish to inquire farther into the detail, will meet with a very excellent account in the Asiatic Researches (vol. v.) by Mr. Le Beck; in which he will find that this fishery, which

[309] Purchas, vol. iii. p. 1708. By Marco Polo, lib. iii. c. 20. who mentions the Bramin; and Betala, as the seat of the fishery. The king had a tenth; the bramin, a twentieth.

used to produce 20,000*l.* to the Portuguese and Dutch [310], produced, in the year 1797, 150,000*l.* under the management of the English [311].

In the age of the Periplûs, none but condemned criminals were employed in this service; a practice common to all the nations of the ancient world, in their mines, in their gallies, in the construction of their public buildings, and execution of all their public works. The mines of Potosi are still worked by slaves, where the same miseries are experienced as Agathárchides [312] has depicted in the gold-mines of Egypt; while in Europe, or at least in England, we never want freemen to work in our collieries, in our mines of tin, lead, or copper, whose labour is procured, and whose dangers are compensated, by the higher price they obtain for the services they are to perform.

I ought now, in compliance with the nature of the undertaking in which I am engaged, to follow my author to the conclusion of his work; but as I am persuaded that he never went farther than Nelkunda himself, and that he has built upon report in all that is subsequent to that place; so does report grow so vague after quitting the Pearl Fishery and Ceylon, that though he mentions several circumstances in common with other authors, there is so much indeterminate, that I reserve it for a separate discussion. My reason for asserting this is, that he

[310] Capt. Stevens.

[311] 300,000 Porto Novo pagodas.

[312] Agathárchides had said a great deal more than his abbreviator has preserved:

Ὑπερβολὴν ἔν ἀδενὶ τὸ πάθος δυστυχήματι καταλιπεῖν ἐκτραγῳδήσας. Apud Hudson, p. 23.

But what remains is sufficient:

Ὁσᾶ δὲ ἀνθρώπων ἄπιστα τῷ πλήθει, πτωμάτων (ὅπερ εἰκὸς γίνεται) ἐκ ολίγων ἐν τοῖς χάυνοις καὶ πλακώδεσιν ὑπονόμοις γινομένων. P. 27.

The multitude of bones still found in these excavations is incredible, of wretches crushed by the falling in of the earth, as must naturally happen in a loose and crumbling soil.

extends the Coast of Coromandel to the east; that he is no longer in particular, but general correspondence only with Ptolemy; and that he has enlarged Ceylon towards Africa, instead of assigning it a position where it actually exists.

Pliny has said something of the passage between Ceylon and the continent, not very satisfactory indeed, but sufficient to shew his opinion, that the trade was carried on by this strait. The Periplûs seems to confirm this idea, and Ptolemy has nothing to the contrary; but if the opening in Adam's Bridge, near Manar [313], was no deeper at that day than at present, no ship of burden [314] could have passed it. Pliny's account states, that throughout the whole of the straits the depth was not more than six feet; but that there were particular openings [315], so deep that no anchor could reach the ground. He is likewise so deceived in the position of the island, as to make the ambassadors sent to Claudius astonished at seeing the shadows fall to the north; not reflecting that in their own country, if he had known its situation, they must have made the same observation annually, when the sun was to the south of the equator. These

[313] Pliny calls either this island, or Ramana Koil, the Island of the Sun.

Manar, in the Tamul language, signifies a sandy river; applied here to the shallowness of the strait. As. Res. v. 395.

The fishery is usually on the Ceylon side; as at the Seewel Bank, 20 miles west of Aripoo, Condatchey, &c. Ibid.

Hardouin allows that the Coliacum Promontorium is not Comorin, but at the Straits of Manar.

[314] A passage in Pliny, omitted in the printed copies, is, Magnitudo alterna millia ad foram; which Vossius inserts and reads, Magnitudo ad terna millia amphôrum. No ship of this size could now pass the straits.

Hardouin adopts this emendation, lib. vi. 24. without mention of Vossius.

[315] The only circumstance I have ever found to countenance this, is in Baldæus (Churchill, iii. 785.), who says, that Teuver, governor of the country, sold the Portuguese a passage through the straits of Manar, *which he commands, by either laying stones, or removing them from the entrance.* This is in 1656: it is possible they are now immoveable, by neglect or disuse.

The fleet was 15 Portuguese frigates; but the fact is *supposed*, though afterwards *asserted.*

and many other errors of the ancients, induce me to enter more largely into the account of Ceylon than the nature of my work requires; and this I shall consider as the termination of my inquiry, leaving the remainder of the Periplûs for a general discussion, by way of sequel to the whole.

XIII. CEYLON.

The first account of Ceylon was brought to Europe by the Macedonians, who were with Alexander in the East. Onesícritus is recorded as the first author who mentions it, under the title of Tapróbana; and its variety of names in the East, as well as Europe, is one of the extraordinary circumstances that attend it.

Lanca[316], or Langa, - is the true Sanskreet name, according to Paolino, p. 371. Vossius ad Melam, lib. iii. 7. Lanca and Lunka signify the *south*, Ayeen Acbari. And Lankialos or Lanka Ilam, the Southern Isle; but what Ilam signifies I have not learned.

Ilam, - - - another Sanskreet name, seemingly joined with Lanca; Lanca-Ilam. Id. There is a fabulous island in Al Edrissi, Lanchialos, which he says is ten days sail from Sarandib. Is it not Sarandib again, with another name?

[316] Lankoweh. Capt. Mahoney on Ceylon, As. Res. vii. 49.

Salabham, - - another Sanskreet name, signifying Sal, true; and labham, gain. Paolino.

Salabha-dipa, - -

Salabha-dip, - - Sanskreet. The Island of *true or real Profit*, from its rich productions of gems, spices, &c. Paolino.

Tapróbana[317], - - the first name brought to Europe. Bochart makes it טפ-פרון Taph Parvan, Littus aureum, 2 Chron. iii. 6. and the Ophir of Solomon. But it is from Tapè, an island, and Ravan, a king of Ceylon, conquered by Ram. According to the As. Researches, v. p. 39. Tapravan, or Tapraban.

Salika, - - - of Ptolemy, who says, it is the Tapróbana of the ancients, afterwards called Simoondu, but now Sálika or Sálikè; the inhabitants, Salæ. Salikè is therefore an adjective like Ariakè, Barbarikè, Limurikè, with γὴ or νῆσος understood. And the island of Salè approaches very nearly to Selendive[318].

[317] Supposed by Burrows to be Tapo-bon, the Wilderness of Prayer. Ayeen Acbari, ii. p. 320. oct. ed. This is not so probable as Tap-raban. Mr. Hamilton does not disapprove of Tap-raban, but adds, that there is no allusion to such a name of the island in any Sanskreet writing he has seen.

[318] There is a particular cast on the island at this day, called Salè or Challe, and Challias: they are labourers, manufacturers of stuffs, and cinnamon-peelers; and if the antiquity of their establishment in the island (for they are not a native tribe) be established, the name of the people, Salai, and of the island, Salikè, would be naturally derived from them. As. Res. vol. vii. p. 431. in a highly curious Treatise on Ceylon, by Capt. Ed. Moor. See also Baldæus, who calls them Shalias.

Seren-dip, Sielen-dip, Selen-dib. - - Σαραντιπ. Chysococcas in Vossius. Διϐ γ' ἔστιν αὐτοῖς νῆσος ἡ χώρα. Voss. ad Melam, 257. Var. ed. 569. Philostorgius.

Selen-dive, - - the Seren-dib, or island Seren, Selen, of the Arabs; the Sarandib of Al Edrissi; the *Divis*[319], and *Serendivis*, of Ammianus Marcellinus, who is the first author of the Latins or Greeks who uses this name. Divis, the Lack-dives or Maldives, or islands in general. Seledivis, Selen-dive, the island Selen. Am. Mar. lib. xxii. p. 306.

Palaisimoondu[320], - of the Periplûs. Pliny says there was a river and city of that name, with 250,000 inhabitants; the natives called Palæogoni, perhaps from Bali, the Indian Hercules. Paolino interprets it Parashrimandala, the kingdom of Parashri, the youthful Bacchus of the Hindoo mythology. But it ought not to be omitted, that Mr. Hamilton considers Simoonto as expressing the *utmost boundary* or *extremity*; and Palisimoonto, as the limit of the expedition of Bali, the Indian Hercules.

[319] Divis is used in the case in which it occurs. P. 306.

[320] Pulo Simoon. Vossius ad Mel. lib. iii. 7. Insula Siamensium, with the Persian addition of Diu Div, an Island. This is a fanciful etymology; and yet the temple in Ceylon, described by Capt. M'Kenzie, As. Res. vol. vi. p. 438. very much resembles the temples in Siam, Ava, &c.

Sindo Candæ, - - so Ptolemy calls a town and the natives, on the west; Galibi and Mudutti, in the north; Anurogrammi, Nagadibii, Emni, Oani, Tarachi, on the east; Bocani, Diorduli, Rhodagani, and Nagiri [Nayrs], on the south.

Sailatta, - - - the name in usage in Malabar. Paolino.

Singala-dweepa, - is the true Sanskreet name, according
Sinhala-dwiba. Paolino. to Mr. Hamilton; the island of Singala[321]; for dwipa, or dweepa, is equivalent to the diva of the Arabs; hence Singala-diva became their Selendive and Serendive; literally, the island of the Singalas, the Chingalese, and Chingulays, of the Europeans; the Singoos or Hingoos, as the natives still call themselves. I cannot help thinking this the most easy and natural of all the etymologies that have occurred; and I return my best thanks to Mr. Hamilton for the suggestion.

Cala, - - - the name used by the Arabs of Renaudot, p. 61.; but perhaps Sala[322].

If such is the fluctuation in the name of this island, the different reports of its size and situation are still more extraordinary.

[321] Singha, a lion; Singhalais, lion-raced; from a fable of a king of Ceylon, born of a lion. Capt. Mahoney, As. Res. vii. 48.

[322] Other names in Harris, vol. i. 677. are, Tranate, Hibenaro, Tenarisim, *i. e.* Tenaceram; but these have been little noticed, and Tena-ceram is *regio deliciarum.*

Onesícritus estimates it at five thousand stadia; but, according to Strabo, mentions not whether it is in length, breadth, or circumference. I conclude that he means the latter; because, at eight stadia to the mile, this amounts to six hundred and twenty-five miles; which is not very distant from the truth; for in Rennell's last map

	Miles.
The length is - - - -	280
The breadth is - - - -	150
The circumference is - - -	660 [323]

If therefore we interpret Onesícritus rightly, he is entitled to the merit of correctness, as well as discovery; an honour due to very few of the ancient geographers in distant regions; but to make amends, he adds, that it lies twenty days sail from the continent.

Eratósthenes reduces this distance to only seven days sail, which is still too much; for it is not more than thirty-five miles from Point Pedro to Calymere, and fifty from the point next Manar to the opposite coast at Ramana Coil, which is the point where Pliny measures, or about an hundred and seventy from Cape Comorin to Manar. But then Eratósthenes adds, that it extends eight [324] thousand stadia towards Africa; that is, according as we compute the stadium, either eight hundred, or a thousand miles, in a direction exactly the reverse of truth. In this I am forced to confess, that the Periplûs has followed Eratósthenes, and added to his error; for it is stated in express terms, that it reaches almost to the coast of Azania [325], which

[323] From Dondra Head to Tellipelli, 270 miles; from Colombo to Trincole, 160.— Hugh Boyd, in the India Ann. Reg.

[324] Strabo, p. 72. 5000; p. 690. 8000.

[325] Καὶ χιδὸν εἰς τὸ κατ' αὐτῆς ἀντιπαρακείμενον Αζανίας παρήκει.

lies opposite to it in Africa. In some account of this sort exists the cause of the error in the Arabian geographers; for Al Edrissi has confounded Cape Comorin, or Comari, with Comar[326], that is, the island of Madagascar; and in his map he has actually placed Madagascar to the eastward of Ceylon. This arises from his extension of the coast of Africa to the East till it reaches the sea of China, and the necessity he was under of making Madagascar parallel to the coast of Zanguebar.

It is with concern that I mention these errors, in which the author of the Periplûs is involved, and upon account of which I am constrained to allow his want of information in every thing beyond Nelkunda, and to confess that his personal knowledge did not extend to Ceylon.

Strabo supposes Ceylon not to be less than Britain, and Josephus[327] conceives Britain not less than the rest of the habitable world: these, indeed, are expressions at random; but what shall be said of the amplification[328] of Ptolemy, who makes its

[326] It seems to admit of proof, that Al Edrissi has made two islands out of Ceylon, instead of one. Saranda, he says, (p. 28.) is 1200 miles in circumference; and Sarandib (p. 31.) is 80 miles long and 80 miles broad. And yet that Saranda is Ceylon, as well as Sarandib, appears manifest, by his placing the Pearl Fishery there, and making it a great resort of merchants for spices. He has a different mistake about Comar, or Comr; for Cape Comorin, and Comr the island of Madagascar, are confounded. In p. 31. Comr is a very long island [or country] the king of which lives in Malai. This is evidently the peninsula terminated by Comorin, the king of which lived in Malabar; and the island Sarandib lies seven days sail from it, which is the distance given by the ancients. But p. 34. we have Comr again, one day's sail from Dagutta: now this is Madagascar; for Dagutta is in Sofala. Perhaps, if we ever obtain a scientific translation of Al Edrissi, we may find distinctions to obviate this confusion; for his translator, Gabriel, knew as little of Ceylon as of Russia.

[327] Strabo, p. 130. Camden's Britannia, pref. lxxviii. See Pytheas Polyb. iv. 629. 40,000 stadia.

[328] D'Anville observes, that this amplification is as 14 to 1.

	Miles.
Length - - - - - -	1,050
Breadth - - - - - -	700
Circumference - - -	2,450

He does not, indeed, extend it towards Africa; but he carries the extreme southern point more than two degrees south of the equator, which in reality is little short of six degrees in northern latitude. His errors descended much later than could have been supposed; for Marco Polo [329] mentions this island as two thousand four hundred miles in circuit; and adds, that it had formerly been three thousand six hundred, but part of it had been swallowed up by tempest and inundation. And even so late as sixty years before the discovery of Gama, Nicola di Conti supposes the circumference to be two thousand miles. Now what is most extraordinary in this is, that both [330] these travellers must have seen the island itself, and must have sailed beyond it, if not round it [331].

My purpose in producing these facts is not to expose the errors of ancient writers on the subject, but to shew how uncertain all information is, when grounded upon report. And yet, in the midst of this darkness, Ptolemy's information was such as, in one instance, to confirm the rank which he so deservedly holds in preference to others; for he gives the names of places more correctly, and more conformably to modern intelligence, than appear in any other author, Greek, Latin,

[329] I am not certain that the amplification of M. Polo descends from Ptolemy; for he says, this is the size, in the mariners' maps, of India. Had Ptolemy seen such a map? or had the Mahomedans introduced the maps of Ptolemy into India?

[330] Not Nicolas di Conti, unless upon his return.

[331] Cesar Frederick passed both by the Straits of Manar, Hackluyt, ii. p. 225. and on the outside of Ceylon, id. ii. 227. See also p. 241.

or Arabian. This is a merit peculiar to him, not only here, but in the remotest and least known regions of the world: it proves that his inquiries were made at Alexandria of merchants or mariners, who had actually visited the countries he describes; but that they had not the means of giving true positions, because they had neither instruments for observation, or the compass to mark their course. The North Polar Star was not visible; and if they sailed by the Canobus in the southern hemisphere, as Ptolemy asserts they did, that star is not within twenty-seven degrees of the Pole, and would give occasion to a variety of mistakes. Still, under all these disadvantages, it is something to have procured names that we can recognize; and these names at once put an end to the dispute formerly agitated among the learned, whether the Taprôbana of the ancients were Ceylon or Sumatra. They prove likewise, that some merchants, or travellers, had reached the capital and interior of the island. By them the capital was found where Candy now is, and called Maa-grammum [332], *the great city*, or metropolis, which was placed on the river Ganges, still called the Ganga, Gonga, or Ma-vali-gonga, *the great river of Bali* [333], which flows to Trincomalee. The Hamallel mountains, among which is the Pike of Adam, are likewise laid down relatively in their proper position, and called Malè, the Sanscreet term for mountains; and above all, Anuro-grammum [334] is preserved in Anurod-borro, or Anurod-gurro, a ruin found by Knox, while he was escaping to the coast; which, he says, lies ninety miles north-west from

[332] These facts are collected from Paolino, Knox, Ribeyro, Major Rennell, and particularly d'Anville. Antiq. de l'Inde, p. 150.

[333] Bali occurs so repeatedly in Ceylon, that here is reason to think that Palæogoni in Pliny, is not a Greek compound, but expresses the descendants, or servants, of Bali.

[334] Gramma signifies a city, in *Sanscreet*. Paolino, p. 250. Knox, p. 6. Borro, boor, poor, and goor, have the same meaning.

Candy, and in a position correspondent with the account of Ptolemy. He found here three stone bridges; the remains of a pagoda or temple, such as no modern Ceylonese[335] could build; and many pillars, with stone-wharfs on the river Malwatouwa[336]. Sindocandæ is another name expressing the mountains of the Hingoos, the name by which the natives call themselves; and Hingo-dagul is their name for Candy; for Candi is a hill or fortress on a mountain; and Hingo-dagul, the city of the Hingoos, perverted by corruption into Chingoo-lees[337], by which name they are at present known to the Europeans settled on the coast[338].

Bochart has many other names, in which he finds a resemblance; and those who know the country, by residing in it, might discover more; but I have confined myself to such as are incontrovertible; and these are sufficient to raise our astonishment, how a geographer could obtain so much knowledge of a country, without being able to ascertain its dimensions or position.

Ptolemy has still another particular which is very remarkable; for as he places the northern point of his Tapróbana, opposite to a promontory named Kôru, so has he an island Kôru between the two, and a Tala-Côri on Ceylon; and Kôry, he

[335] Knox, pp. 72. 80. The natives of Hindostan, the peninsula, or Ceylon, are not deficient in skill, art, or power, to execute such works as are found here, or at Elephanta, or at Elore. But the Hindoo governments are not wealthy or powerful enough to support the expence; and perhaps the impulse of superstition has not energy enough to require it.

[336] Ouwa, or ohha, is *water* also in Abyssinian, and eau in French!!

[337] For the whole of this, see Knox's History of Ceylon. He was seized after shipwreck, and detained 25 years a prisoner. He possessed the language; and though he may have his errors, is highly worthy of credit as an author of integrity, principles, and religion.

[338] D'Anville likewise mentions the wild country on the south, where elephants are still found, with other resemblances; but these are sufficient to prove the fact for which they are adduced.

adds, is the same as Callígicum. This is denied by d'Anville, who by separating the two capes, makes Kôry, the point of the continent, at Ramiseram; and then supposes Kallígicum to be Kalymere, or Kallamedu. This may be true or not, but it carries us away from the intention of the author; for Ptolemy has nothing to correspond with the northern head of Ceylon, now called Point Pedro [339]; but he makes his Borêum, or northern cape, erroneously indeed, opposite to Kôry; and his three Kôrys, on the continent, on the intermediate island and on Ceylon, are in perfect correspondence with circumstances actually existing.

The expedition of Ram to Ceylon, and his victory over Rhavan, or Rhaban, king of that island, is one of the wildest fables of Hindoo mythology; but he passed into the island at the strait, since called, by the Mahomedans [340], Adam's [341] Bridge. The whole country round, in consequence of this, preserves the memorials of his conquest. There is a Ramanad-buram on the continent close to the bridge; a Rami-ceram, or country of Ram, the island close to the continent; a Point Rama, on the continent. The bridge itself, formed by the shoals between Rami-ceram and Manar, is Rama's Bridge: and in Rami-ceram is Raman-Koil, the temple of Ram. This Koil or temple is undoubtedly the origin of Kôru; and the repetition of it three times in Ptolemy, is in perfect correspondence with the various allusions to Ram at the present day. Kôru is likewise written

[339] Tellipelli is more northerly than Point Pedro; but, lying out of the course of the voyage, is seldom noticed.

[340] See Lettres Edifiantes, tom. xiii. p. 108. & 124.

[341] The existence of tigers, and other noxious animals, in Ceylon, almost proves an aboriginal communication with the continent by means of this bridge. Elephants might have been imported, but a cargo of tigers is not probable.

Kôlis[342] by Diony'sius, and the natives called Kôniaki, Koliki, and Koliaki, by different authors. This fluctuation of orthography will naturally suggest a connection with the Kolkhi of Ptolemy and the Periplûs, which both of them make the seat of the Pearl Fishery; and if Sosikoorè be Tuta-corin, as d'Anville supposes, the relation of Kolkhi to that place will lead us naturally to the vicinity of Ramana-Koil; for Tuta-corin was the point where the Dutch presided over the fishery while it was in their hands, and maintains the same privilege now under the power of the English. But Koil, whether we consider it, with Ptolemy, as the point of the continent, or seek for it on the island of Ramiseram[343], is so near, and so intimately connected with Manar, the principal seat of the fishery, that there can be little hesitation in assigning it to the Kolkhi of the ancients. Whether there be now a town of consequence either on the continent or the island, I am not informed; but that Koil, and Kolis, and Kolkhi, and Kalli-gicum[344], are related, I have no doubt.

The Kolkhi of Ptolemy is on the coast, indeed, previous to a river called Solên; and such a river appears in Rennell's Map, with the name of Sholavanden applied to a town on its bank;

[342] Paolino supposes Kolis to be Covalam; but Diony'sius evidently makes Kôlis the same as Kôru: Νοτίης περοπάροιθι κολώνης .... Κωλίαδος, μεγάλην ἐπὶ νῆσον ἴκοιο .... Ταπροβάνην.

[343] See the account of Ramisur and Manar, in Capt. Mackenzie's Narrative, As. Researches, vol. vi. p. 425.; a paper which gives the best account of the two islands, the straits, and Adam's Bridge, that I have yet seen. There does not appear any town or any buildings on this island, except those about the pagoda. The conflux of pilgrims is immense. Coil, in the Tamul language, signifies a temple. P. 427.

[344] For Kallígicum, Salmasius reads Κωλιακόν. Plin. Ex. p. 1113. And he adds, Præter alia hac re moveor, Κωλεκε'ς vel Κωλιακους veterum, esse recentiorum Κόλκους. And yet, strange! he thinks the Kolkhi of the Periplûs to be Cochin.

or Solên[345] may be the Greek term which signifies a shell-fish, alluding to the Pearl Fishery in the neighbourhood. If therefore we adhere to Ptolemy, the issue of this river would give the position of Kolkhi to a certainty; but the description of the Periplûs would lead us directly to Koil, on the island Rami-ceram; for it is there said, that the Bay of Argalus succeeds immediately next to Kolkhi. Now the Argalus of the Periplûs is the Orgalus of Ptolemy, which he places instantly subsequent to his promontory Koru; and if we suppose this promontory to be the extreme point of the continent north of Rami-ceram, which it is, we obtain the position of the Kolkhi of the Periplûs, without a doubt. The island Kôru of Ptolemy is placed at a distance from the main, erroneously, as all his islands are; but as it is certainly the same as Rami-ceram, and Rami-ceram is separated from the continent only by a narrow channel, the island Kôru and the cape Kôru may therefore have been brought into one. I certainly think that Kôru, Kolis, Kolkhi, and Koil, are the same; but I am not so much led by the name, as by the position assigned to Kolkhi in the Periplûs, immediately preceding the Bay of Argalus.

My own deductions on this question, I must confess, are contrary to Ptolemy; and his authority has induced d'Anville,

[345] Solên, in its original sense, is a pipe or flute, which the oblong muscle may be supposed to represent; but not the pearl oyster. Perhaps this muscle was found in the river, without relation to the fishery. I learn from Capt. Mackenzie, that there is a fishery on this side of the strait nearest the continent, called Chanque, carried on along a range called the Low or Flat Islands. The river, as d'Anville has observed, divides inland, and falls into the sea by two mouths—one on each side of Kôru. D'Anville, Antiq. de l'Inde, p. 123. As. Researches, vol. vi. p. 426. Chanquo, the native term for the pearl oyster, according to Salmasius, is derived from Concha, and received from the Greek and Roman traders. 1129. But Chanquo is not the pearl oyster, according to Baldæus in Churchill, iii. 648. May it not be the muscle which bears pearl, so strenuously insisted on by Bruce?

Rennell, and Robertson, to assume Kilkhare which is at the mouth of the river. It is but reasonable to conclude, that the concurrence of witnesses so eminent will prevail against the evidence of the Periplûs, and any thing that I have to offer in its favour. Still, however, it is just to state the question fairly, and leave the determination to those who may chuse to scrutinize it more precisely. On one point all testimonies agree; which is, that Kolkhi cannot be Colechè, as Paolino with much confidence asserts; for it is impossible that it should be to the west of Cape Comorin.

From the fishery we may proceed to the island itself; and the most distinct knowledge we have of Ceylon from the ancients, is found in Cosmas Indicopleustes, whose narratives are as faithful as his philosophy is erroneous. He tells us honestly, that he was not at Ceylon himself, but had his account from Sôpatrus, a Greek, whom he met at Adooli, but who died five-and-thirty years previous to his publication[346]. This affords us a date of some importance; for it proves that the trade, opened by the Romans from Egypt to India direct, continued upon the same footing from the reign of Claudius and the discovery of Hippalus, almost down to the year 500 of our era; by which means we come within three hundred and fifty years of the Arabian Voyage published by Renaudot, and have but a small interval between the limits of ancient geography and that of the moderns.

Sôpatrus, as his name testifies, was a Greek; and I have not yet met with the name of a single Roman engaged in this

[346] Montfaucon fixes the last date of Cosmas's publication in 535.

trade [347]. Perhaps the jealousy of the emperors, which did not allow Roman citizens to enter Egypt without permission, had likewise forbidden them to embark in these fleets. But the intelligence derived from Sôpatrus is so perfectly consistent with all that has hitherto been adduced, and so correspondent to the Arabian accounts, which commence only three hundred and fifty years later, that it carries with it every mark of veracity that can be required. For Cosmas reports, from the testimony of Sôpatrus:

I. That the Tapróbana of the Greeks is the Sieli-diba of the Hindoos; that it lies beyond the Pepper Coast, or Malabar; and that there is a great number of small islands [the Maldives] in its neighbourhood, which are supplied with fresh water, and produce the cocoa-nut in abundance. The cocoa-nut he calls Argellia; and Argel, or Nargel, I am informed, is the Arabic name of the cocoa-palm tree. He adds, that it is nine hundred miles in length and breadth, which he deduces from a native measure of three hundred gaudia; by which, if he means circumference, his computation is nearer to the truth than that of the more ancient writers. But the most remarkable circumstance is, that the gaudia, written ghadia, is to this day a native measure of the Ceylonese; it is the same as the naliguai of Tamoul, equal to three-eighths of a French league, or nearly a mile and a quarter English. If therefore we consider that his miles are Roman, 900 Roman miles compared with 660 English, is an amplification very moderate [348], compared with the enormity of other ancient authors.

[347] The freedman of Plókamus, who reached Ceylon in the reign of Claudius, was not a Roman, and Plókamus is not a Roman name: he was himself probably a libertus of Claudius.

[348] The excess is short of 150 miles. See Lettres Edifiantes, tom. xv. p. 181.

II. He acquaints us next, that there were two kings on the island: one called the King of the Hyacinth[349], that is, the country above the Ghauts, where the ruby and other precious stones were found; and a second king, possessed of the remainder, in which were the harbour and the mart, that is, the low country on the coast, where, in different ages, the Arabians, the Portuguese, Dutch, and English, have been established. On the coast also, he says, there were Christians from Persia, with a regular Christian church, the priests and deacons of which were ordained in Persia; that is, they were Nestorians, whose cathólicos resided at Ctêsiphon, and afterwards at Mosul: in fact, they were the same as the Malabar Christians of St. Thomas, and occupied nearly the whole of the low country on the coast, while the native sovereigns, above the Ghauts, were Hindoos.

III. Another particular we obtain is, that in the age of Sôpatrus, Ceylon was considered as the centre of commerce between China and the Gulph of Persia and the Red Sea. The Chinese he calls Tzinitzes[350]; a most remarkable term, expressing the natives of the Cheen, or Ma-cheen, of the Arabs; that is, either the peninsula of Malacca, or China itself; most probably the latter, because he mentions the same particulars as Ptolemy and Pliny assign to the Sêres; that they inhabit the country farthest to the east, and that there is nothing but sea beyond it.

[349] The ruby of Ceylon is proverbial. Paolino, dedication. Pliny, xxxvii. 41.

[350] Τζινίτζαι.

IV. The commodities obtained from China, or other places east of Ceylon, or found[351] there, are, silk[352] thread, aloes[353], cloves, and sandal-wood[354]. These articles are exchanged with Malè, or the Pepper Coast; or with Kallíana [Tana], which supplies in return brass, sesamum-wood[355], and cottons. Its commerce likewise extends to the Sindus, where the castor, musk, and spikenard, are found; and to the gulph of Persia, to the coast of Arabia, and to Adooli; while the several commodities of these countries are again exported from Ceylon to the East.

V. We are next informed of the several ports of commerce, commencing from the Indus, in the following order: Sindus, Orrotha[356], Kallíana, Sibor, and Malè; and if it might be permitted to interpret these Scindi, Surat, Bombay or Tana, Canara, and Malabar, Cosmas and Sôpatrus would be in perfect correspondence with the Periplûs. In Malè, or Malabar, he adds, there are five ports where pepper may be procured—Partí, Mangarooth, Salo-patan[357], Nalo-patan, and Pooda-patan. Mangarooth is generally supposed to be Mangaloor; and the three Patans, or towns of Salo, Nalo, and Pooda, are so evidently Malabar names, that it is highly probable those

[351] Ὅσα κατὰ χώραν εἰσί.

[352] Μέταξιν, read μέταξαν.

[353] So Al Edrissi: Aromata vero quæ in eodem Climate [Ceylon] reperiuntur, sunt caryophilla, sandalum, canfora, & lignum aloes, quorum omnium nihil invenitur in aliis climatibus. P. 38. But without any mention of cinnamon, though he notices the emerald and the ruby.

[354] Τζανδάναν.

[355] Σησαμινὰ ξύλα. What this article means, I cannot say; but it is mentioned in the Periplûs also, and is possibly a corrupt reading in both.

[356] If we suppose Orrotha related to the Oopara of the Periplûs, it is possibly on the Tapti, and equivalent to Surat; but there is a part of Guzerat, near Diu, called Soret. Orrot and Sorret are nearly allied.

[357] I find Balo-patan and Pure-patan in Astley [Green], i. 29.

who are conversant in the native language of the coast may still discover them, however they have been superseded by the more modern ports of Calicut, Cochin, or Coulan.

VI. After this follow some accounts, not equally correct or intelligible; for we are informed, that Sielidiba is five times twenty-four hours sail from the continent; and that on the continent is Marallo, producing [pearl] oysters; with Kaber, that affords the alabandênon [358]. Kaber alludes probably to the river Caveri of Tanjour. Morallo I should have supposed to be Manar; but if it be upon the continent, it is Marawar. The five days [359] sail may be softened, by supposing the departure from the last port visited in Malabar; but standing as it does, it is erroneous.

VII. It is then mentioned, that the king of Ceylon sells elephants by their height; and an observation, that in India elephants are trained for war, while in Africa they are taken only for their ivory. This is true on the eastern coast; but the Ptolemies and Hannibal trained the African elephant for their armies. Another circumstance is noticed, which continues true to this day; which is, that the importation of horses from Persia pays no duty. Cesar Frederick mentions the same on the coast of Canara, in his time; and Hyder Alli had his agents dispersed from the Indus to Arabia, to obtain a constant

[358] Vossius reads ἀλαῖς ἀνδινόν, which seems unintelligible; but he informs us it means nutmegs of Banda. We are, however, at present on the coast of Coromandel. Hoffman says, all merces barbaricæ are so called, as also toys and trifles. See the Catalogue.

[359] Onesícritus - - - 20 days.
Eratósthenes - - - 7
Pliny - - - - 4 days.
Cosmas - - - - 5

The real distance, where the island approaches nearest to the continent, is short of 50 miles; from Cape Comorin to Columbo, about 180: both too short for any of the ancient estimates.

supply for his numerous cavalry. The horse is said not even to breed on the whole western side of the peninsula; or if by accident a foal is dropped, it is worth nothing.

VIII. The last circumstance I shall notice is, a conference between the king of Ceylon and Sôpatrus, in presence of a Persian, who had boasted of the power of his sovereign: "Well! Roman," says the king, "what have you to say?" "Look," replied Sôpatrus, "at the coins of Rome and Persia: "that of the Roman emperor is of gold, well wrought, splendid, "and beautiful; while that of Persia is an ordinary silver "drachma." The argument was conclusive; the Persian was disgraced, and Sôpatrus was placed upon an elephant and paraded through the city in triumph. Vain as this circumstance may appear, two extraordinary particulars attend it; for the king's address to Sôpatrus is, Roomi [360], the term still used in India to express any inhabitant of those countries which once formed the Roman empire; and the second is, that the Persians of that day actually had no gold [361] coin, while the coins of Byzantium were the purest and finest in the world.

[360] Ρωμεῦ. If Cosmas had not meant to give the very word of the Ceylonese, he would have written Ρωμαιε. In India the Turks are called Roomi, as possessing Constantinople, the seat of the Roman emperors.

[361] I cannot help transcribing a passage as I found it by accident in Mascou's History of the Germans:

Monetam quidam argenteam Persarum Rex arbitratu suo cudere consuevit. Auream vero neque ipsi, neque alii cuipiam Barbarorum Regi, quamvis auri domino, vultu proprio signare licet. Quippe ejusmodi moneta commercio vel ipsorum Barbarorum excluditur. Mascou, vol. ii. p. 98. from Procopius, lib. iii. cap. 33. See Cosmas also, p. 148.

The *exclusion* of the Persian coin is the very circumstance that took place upon this occasion; and it should seem, that as the Greek coins of Bactria, &c. had been current when the merchant of the Periplûs was at Barugáza, the Roman coin had now the preference, as the Imperial dollars, Venetian sequins, and Spanish piastres, have had a superiority in later times. For the purity of the Roman mint at Constantinople, see Clark on Coins.

I have seen the coins of the second Persian dynasty in M. de Sacy's account of them, and

But in addition to these various particulars, Cosmas has left also some traces of natural history that do credit to his veracity; for he describes the cocoa-nut, with its properties; the pepper plant, the buffalo, the camelopard, the musk animal, &c.; but the rhinóceros, he says, he only saw at a distance. The hippopótamus he never saw, but obtained only some of his teeth; and the unicorn he never saw, but as it was represented in brass in the palace of the king of Abyssinia. I mention these circumstances to prove the fidelity of the traveller; for truth is as conspicuous in what he did not, as in what he did see. And after this extract, selected out of his voluminous work, if nothing equally precise or satisfactory is to be collected out of the Arabian writers, or Oriental accounts of any sort, let it not be deemed prejudice or partiality, if we prefer Greek or Roman authorities to all that can be found in any other ancient history whatsoever.

One part of the question has, however, eluded all my inquiries; which is, that I have not found the mention of cinnamon, as a native[362] of Ceylon, in any author whatsoever. Iambûlus, Pliny, Dioscórides, Ptolemy[363], the author of the Periplûs, and Cosmas, are all equally silent on this head, and

if I recollect rightly, they have the head of the kings; but I do not remember whether they are all silver.

[362] It is mentioned by Matthioli, and in the preface to Ribeyro's History of Ceylon (Fr. ed.) that Strabo notices cinnamon from Ceylon. I have not found the passage; but at p. 63. I find the regio Cinnamomifera and Taprobana joined under the same parallel, which perhaps may have led to such a supposition; and again, p. 72. but in the latter passage we have the produce of Taprobana—ivory, tortoise-shell, and other articles; and here I should have expected to find cinnamon, if the author had noticed it as a native of the island.

[363] The language of Ptolemy is precise: he says rice, honey, ginger, the beryl, the ruby, gold, silver, and all other metals, elephants and tigers, are found in Tapróbana; but does not mention cinnamon. P. 179. Taprobana.

all derive their cinnamon and casia either from Arabia or Mosyllon, or more especially from the Cinnamon Country, as they term it, on the eastern coast of Africa. That the ancients obtained the best and purest cinnamon, we know from their description of it; and that best sort grows no where but in Ceylon. That they might be deceived in regard to its origin, while they went only to Tyre, Sabêa, or the coast of Africa, is natural; but that they should not recognize it in Ceylon, when some merchants went thither in the age of the Periplûs, and in all succeeding ages down to the time of Sôpatrus and Cosmas, is unaccountable.

No voyagers, travellers, or writers, pretended to have visited Ceylon personally, except Iambûlus and Sôpatrus. I know not how to excuse even Sôpatrus, who was only once there casually; but against Iambûlus, who asserted that he had resided in Ceylon seven years, the charge of fiction is almost direct: no one could have been resident so long, without seeing cinnamon, the staple of the island; and that if he had seen it, he should not have recorded it among the other particulars he detailed, is incredible; for the curiosity of Greece[364] and Egypt was as much alive to this inquiry, as to any one that regarded the produce of the East.

Dioscórides[365] and Galen knew it not. Diony'sius, who lived under Augustus, preserves the fable of Heródotus, that birds

[364] Cinnamon seems to have been the first spice sought after, or procured, in all Oriental voyages, both ancient and modern. See Hackluyt, ii. 96. The first voyages to the Levant from England, in 1511, 1517, &c. obtained pepper, cinnamon, and other spices. The English had employed Genoese, Ragusan, Sicilian, Candian, Venetian, Spanish, and Portuguese ships, as well as their own. See Hackluyt.

[365] See Matthioli on Dioscorides, lib. i. cap. 12, 13. and p. 44. where the casia (our

brought it from uninhabited islands. I do not pretend to have explored the whole range of antiquity on this subject; but the first mention of cinnamon, as the produce of Ceylon, that has occurred to me, is in the Scholiast[365] of Dionysius on this very passage. Whether that circumstance will prove the early date of that knowledge, or the low date of the Scholiast, must be left for others to determine. Sir William Jones has taken ample notice of this obscurity, and remarks upon the Cinnamon Country of the ancients in Africa, the limit of their geography to the south, that it does not produce a single specimen of this article in the present age, or in any former age, which can be ascertained. Bruce, however, maintains, that the finest cinnamon was found in Adel, or about Cape Arômata, and probably transplanted thence to Ceylon; but why should any merchants carry the plant to Ceylon, which was more distant,

cinnamon) is said to come from Arabia, and the ancient cinnamon, or sprig of the tree, from Mosyllon. Casia is described by Theophrastus 370 years prior to Dioscórides; and by Heródotus, in some degree. Strabo says, Arabia produces casia, cinnamon, and nard. P. 783. Matthioli adds, p. 46. that Strabo likewise says, cinnamon comes from the southern parts of India; but I have not yet met with the passage. Pliny follows Theophrastus. See also the curious account (p. 45.) that Galen gives of the cinnamon in possession of Trajan, Adrian, Antoninus, Commodus, and Severus; in all which relations not a word is found respecting its origin from Ceylon: those who would examine it, as now cultivated in that island, may consult Thunberg, vol. iv. 199.

[366] Ὄρνιθες δ' ἐτέρωθεν ἀοικήτων ἀπὸ νήσων Ἦλθον φύλλα φέροντες ἀκηρασίων κινάμωμων. Birds brought from uninhabited islands the leaves [rolls] of unadulterated cinnamon. Upon this the Scholiast writes . . . ἀοικήτων νήσων· ἤγουν τῶν περὶ Ταπροβάνην. I conclude from this passage, that the Scholia are not by Eustáthius; for the expression here is precise. But Eustâthius writes, ἀπὸ νήσων . . . τῶν περὶ τὸ Ἐρυθραῖον τάχα πέλαγος; that is, the islands in the Erythrêan Sea, which is general.

It is not unworthy of remark, that these birds of the poet attend Bacchus at his birth, in conformity with Heródotus; and their appearance seems likewise to be in Arabia, from the context. See Dionysii Perieg. lin. 944. and the Commentary of Eustáthius, p. 267. ed. Ox. 1697, where the Scholiast is described, Paraphrasis veteris Scholiastæ ex codice MS. nunc primum eruta.

when the confining it to Adel would have saved a year's navigation? Still Bruce is not singular; for the Periplûs not only notices cinnamon as a native produce, but asserts it in contradistinction[367] to other articles which were in the country only by importation. Bastard cinnamon is found in Malabar, and true cinnamon, though of an inferior quality, in Sumatra; perhaps also in other islands farther to the east; but that the best growth has been constantly in Ceylon, from all the evidence before us, is undeniable.

The spice we now have, which is the kasia of the ancients, was certainly *procured* in Africa; and the testimony of the Periplûs is direct[368], that it *grew* there. I state this with all its difficulties, which I cannot solve; but as there was a voyage constantly performed, from Barugáza to Africa, previous to the Greeks having any knowledge of such an intercourse, the only possible solution to be imagined is, that the merchants engaged in this commerce kept the secret to themselves: they imported it at Barugáza from Ceylon, and exported it to Sabêa, where it was first found by the traders from Egypt, by Solomon, and the Tyrians; and in a later age, to the ports of Africa, where they dealt immediately with the Greeks, without suffering by the monopoly of the Sabêans. How such a secret could be kept so long a time, or how the Greeks could be persuaded that kasia grew in Africa, is, with such lights as we have, inscrutable; but that it was not the produce of Africa, is suffi-

[367] Periplûs, p. 8. προχωρεῖ δὲ εἰς τὸ ἐμπόριον . . . τὰ προειρημένα· γίνεται δὲ τὰ ἐν αὐτῷ κασσία, &c. The opposition of προχωρεῖ to γίνεται, is evidently designed.

[368] Periplûs, p. 8. Ἐν αὐτῇ γεννᾶται Κασσία. And again, γίνεται ἐν αὐτῷ Κασσία. And both verbs appear precise; for the imports from the East are specified separately.

ciently proved by the general suffrage of all modern voyagers and merchants whatsoever.

It is true, however, that the fleets which conveyed it from Guzerat to the coast of Africa must likewise have brought it to Arabia; for from Arabia the Tyrians and Greeks of Egypt first procured it: and when the Greeks afterwards went to Arômata, Mosullon, and the ports of Adel, it is evident that they found a cheaper market there than at Aden, Kanè, or Moosa; for in Sabêa it was a monopoly. That cinnamon came to Máketa [Moçandon] and the province of Oman, we are assured by Arrian; and that it was imported there direct from Guzerat, is much more probable than that it should be brought by a circuitous course from Africa: and yet it seems very extraordinary that this spice should not be noticed among the imports or exports of the Gadrosian O'mana, which was manifestly, in the age of the Periplûs, established as a centre of all the commerce which passed between India on the east, and Arabia on the west.

One circumstance worthy of remark is still to be considered; which is, that the merchant of the Periplûs mentions kasia only, and never cinnamon. Cinnamon, as we have learnt from Galen, was a present for kings and emperors; but the kasia, the canna fistula, or pipe cinnamon, which we now have, was the only article of merchandize in that age, as it still continues. And now that Ceylon is in the hands of the English, it would be no difficult matter to obtain the tender spray of the four principal sorts noticed by Thunberg, and compare them with the accounts of Theophrastus, Dioscórides, and Galen. As the species which we have answer to their kasia,

it is highly probable that the spray would answer to their cinnamon; for that both were from the same plant, or from different species of the same, there can be little doubt, as Galen acquaints us, that in the composition of medicines a double [369] portion of kasia answered the same purpose as a single one of cinnamon; and that both entered into the theriac which he prepared for the emperor Severus.

Such is the account that has appeared necessary to be stated relative to the ancient situation of this celebrated island. The modern history of it may be obtained from Baldeus, Valentine, Knox, Ribeyro, Harris, Hugh Boyd [370], Le Beck; Captains Mahoney, Colin M'Kensie, and Percival. And I cannot conclude my commentary on the Periplûs without pleasure from the reflection, that the valuable commerce of this island is now in the possession of Britain; or without expressing a most anxious wish, that the country deemed a terrestrial Paradise [371] by the Oriental writers—the repository of cinnamon, cloves, betel, camphor, gold, silver, pearls, rubies, and

[369] Matthioli, p. 47.

[370] Mahony's, Le Beck's, and M'Kenzie's Narratives, are in the Asiatick Researches, vol. vi. p. 425. vol. v. p. 393. and vol. vii. p. 32.; H. Boyd's, in the Ind. An. Register, 1799: they are all valuable, and worth consulting.

[371] "The country, in which we now are, "has amply repaid us for all our troubles: it "is undoubtedly one of the finest countries in "the world, and well deserves the name of "Paradise.—Mountains cultivated to their "summits, and interspersed with rivulets, "villages, and cattle, and with well-trodden "foot-paths crossing them in all directions; "fruitful vallies, with groves of areka, jack, "cocoa-nut, limes, oranges, plantain, and "pample nose trees; fine villages, and fields "of paddy, raggee, natchenee, and other "grain; the paddy fields well watered by the "streams rushing down from the mountains: "altogether forming such a striking scenery "as is but seldom seen."

This is not an Oriental description, but from a British officer, who marched into Candy the next day. As. An. Reg. 1803. Chron. p. 85. & 191.

the other most precious commodities of the world—may find protection, happiness, and security, under the British government. And may the expulsion of the Mahomedans, Portuguese, and Hollanders, be an admonition to us, that conquest obtained by arms can alone be rendered permanent by equity, justice, and moderation!

ADVERTISEMENT.

AS it will appear evident from the Remarks on the Sequel, that the Author did not visit the countries which he mentions, it has been thought advisable to give the relation in his own words, with a Commentary, rather than to delineate the regular progress of a voyage. Remarks of this kind distract the attention, but still they may gratify curiosity: it is not pretended that they will solve every difficulty, or reconcile every contradiction, but they will in general account for the origin of both.

SEQUEL

TO THE

PERIPLUS OF THE ERYTHREAN SEA.

TRANSLATION.

THE first[1] place that succeeds after leaving Kolkhi, is the Bay A'rgalus[2], connected with a district inland [of the same name]. Here, and here only, all the pearls obtained in the fishery at the island of Epiodôrus[3] are[4] [allowed to be] perforated (*a*) [and prepared for the market]. Here also are to be purchased the fine muslins called Ebargeitides (*b*).

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(*a*) This would be in the modern district of Marawar, possibly the Marallo of Cosmas: Tutacorin, the place where the market is now kept, and the pearls taxed, is in Tinivelli, west of Rami-ceram. The earliest modern accounts agree in Tutacorin, while the power was in the native government; the Portuguese, Dutch, and English, have continued it there. Both Provinces, in the age of the Periplûs, were in the kingdom of Pandíon; and the Bay of A'rgalus was nearer Mádura, the capital, than Kolkhi, or Sosikoorè. This was a sufficient reason why the market should be rather on the east, than the west sidē of Rami-ceram.

(*b*) Salmasius reads Σίνδονες μαργαρίτιδες, muslins sprinkled with pearls. Hudson, & Plin. Ex. 1173. which, notwithstanding the pearls bored at A'rgalus, seems highly

NOTES.

[1] Πρότερος ἀιγιαλὸς ἐν κόλπῳ κείμενος.

[2] Written in Ptolemy,
Sinus Orgalicus,
Sinus Agaricus,
Sinus Argaricus.

[3] Manar.

[4] Περονεῖται is the reading of Salmasius, which ought rather to be περονᾶται. The text stands τερονεῖται, for which, perhaps, τερεῖται might be substituted. But perforation is manifestly intended, be the reading what it may.

Proceeding from hence, the most conspicuous of all the marts and anchorages on the coast are Kámara (*c*), Podooka, and Sôpatma. To these the traders from Limúrikè[5], and the other provinces north[6] of Limúrikè, resort; and in these marts are

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dubious. If we were to examine a catalogue of muslins at an India sale, we should find many names more strange than Ebargeitides, derived either from the manufactures, or the place where procured. See the Catalogue.

(*c*) Where to fix any of these three places is mere conjecture: our course is still east, according to the Periplûs; but if Kámara be the Cháberis Emporium of Ptolemy, as Mercator supposes, his Podooka is still higher up the coast, and our course ought to be north-east; and if his Manarpha be Maliarpha, or Meliapoor, *that* place is the St. Thomè of Madras; in which case Podooka must be fixed somewhere on the coast between the Cavery and Madras, but where, it is impossible to determine. Sopatma is not noticed by Ptolemy. Soro-patma would be the town of the Soræ, with some allusion to the Soræ of Ptolemy and to Coromandel; but it is all conjecture; and yet, notwithstanding this obscurity, we have manifestly a trade here described, regularly carried on by native traders, between Malabar and Coromandel *, without the leaſt notice of Greeks being concerned in it. We have an account that the specie brought by the Greeks to Cánara, finally settled on the other side of the peninsula; and as we know that in all ages the commerce of India cannot be carried on without specie, so we see here its regular progress to the eastward. We are informed also, that the exports of Egypt to Cánara, and the produce of Cánara itself, went by the same conveyance to Coromandel; and that the principal articles in return were the muslins, as they are at this day: the merchants from Guzerat and Concan partook in this trade, and possibly those from Scindi. In the whole of this, without being able to specify particular places, we have a general picture of Indian commerce, so conformable to the accounts of the Arabs, and of the Portuguese upon their first arrival on the coast, that we want no further evidence to persuade us, that

NOTES.

[5] Canara.

[6] Barugáza or Guzerat, Aríakè or Concan.

* The Mahabar of Marco Polo is written Malabar by some of his translators; but his Mahabar is the Coast of Coromandel, the Mobar of Friar Odorick; and Mahbar, or Mahabar, it is written by Abilfeda, apud Melch. Thevenot, tom. ii. p. 22. who adds, Inde deferuntur telæ nobilissimæ. The province of Bahar, in Abilfeda's time, was the seat of the Maha Rajah. Is not Maha-bar the *great* coast, as Mala-bar is the *mountain* coast?

found the native vessels which make coasting voyages to Limúrikè—the monoxy'la of the largest sort, called sangara, and others styled colandiophônta, which are vessels of great bulk, and adapted to the voyages made to the Ganges and the Golden Chersonese.

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the commerce of India was as vigorous antecedent to history, as it is stated at the moment that history commences. The different sorts of vessels constructed in these ports are likewise correspondent to modern accounts: the monoxy'la are still in use, not canoes, as they are sometimes improperly rendered; but with their foundation formed of a single timber, hollowed, and then raised with tiers of planking till they will contain 100 or 150 men. Vessels of this sort are employed in the intercourse between the two coasts; but the kolandiophonta, built for the trade to Malacca, perhaps to China, were exceedingly large and stout, resembling probably those described by Marco Polo and Nicola di Conti. Barthema likewise mentions vessels of this sort at Tarnasari (Masulipatam ?), that were of 1000 tons (dolia ?) burthen (lib. vi. c. 12. Grynæus), designed for this very trade to Malacca. This is the more remarkable, as d'Anville fixes the Mæsolia of Ptolemy at Masulipatam; and Ptolemy's point of departure for Khrusè, or Malacca, at the Godavery, twenty-six leagues only to the north. From these circumstances there is great reason to conclude that he is right; for Barthema had come from the Straits of Manar to Puleachat, north of Madras, and then proceeded to Tarnasari, where he embarked for Bengal, Pegu, and Malacca. How extraordinary, then, is the correspondence of the Periplus with the modern course of these navigators, from the Straits of Manar to the Carnatic! and from the Carnatic, passing the wild tribes of Orissa (still savage) between the Godavery and the Ganges; and then proceeding to Malacca, or the Golden Chersonese! Still however, with all this accuracy, he is in the same error with Ptolemy, carrying the whole course east till he reaches Dêsarênè or Orissa, and then giving it a northerly direction to the Ganges.

The other vessels employed on the coast of Malabar, as Trappaga and Kotumba, it is not necessary to describe: they have still in the Eastern Ocean germs, trankees, dows, grabs, galivats, praams, junks, champans, &c. names which have all been adopted by the Europeans, and which it is no more requisite to distinguish, than to explain our own brigs, snows, schooners, sloops, or cutters, to the Hindoos. But the mariners aboard the Indian vessels I have looked for in vain: neither Greeks or Arabs are mentioned; but as the manners and religion of the Hindoos exclude not foreigners from their country, it may be presumed that their seamen were always

To these marts likewise are brought all the articles prepared [7] [in Egypt] for the market of Limúrikè; and almost all the specie, of which Egypt is continually drained by its trade with Limúrikè, finally centres in this coast [8], as well as all the produce of Limúrikè itself.

From the coast [9], as the course of the navigators tends to the east round the countries which succeed, the island, now called Palaisimoondus, but formerly Taprobana, lies out in the *open* [10] sea to the west (*d*); the northern part of which is civi-

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foreigners, possibly Malays, or even Chinese; for that the Hindoos themselves never used the sea, is almost indubitable. The whole voyage appears to have been made by coasting, and so it continued when we first meet with Arabs in these seas; which is the more remarkable, as the monsoon was known, and made use of between Africa and India; and the same monsoon prevails to the east, as well as to the west of Cape Comorin.

I do not find the Tarnasari of Barthema in the modern maps: it might lie between Puleachat and Bengal. But the peculiarity is, that there is an island Tanaseram on the coast of Siam, and the great river so called. Tana-seram is Regio Deliciarum. Vossius ad Melam, lib. iii. 7.

Mr. Marsden mentions the vessels that come regularly from Telingana, between the Godavery and Kistna, to Acheen, at this day. This district corresponds sufficiently with the port assumed by Ptolemy, for the passage to Khrusè, and with the Tarnasari of Barthema; but does not determine the situation: it seems, however, to bespeak the same trade. Marsden's Sumatra, p. 312.

(*d*) The better knowledge of this passage which I have now obtained, obliges me to recal the argument which I had advanced on the meaning of δύσιν, in the dissertation on Ἐιτενηδιομμενηθειαίος, p. 17. I now understand that the island lies to the *west* as you sail to the *east* from Ceylon.

NOTES.

[7] Εἰς τὴν Λιμυρικὴν ἐργαζόμενα, quæ in Limyrica elaborantur. Hudson. But then it should be ἐν τῇ Λιμυρικῇ.

[8] Χρῆμα. Res præterea omnis generis. Hudson. But χρῆμα is used repeatedly in the Periplûs for specie.

[9] Παραλία, the *coast* of Coromandel, in contrast to the Παραλία, or *coast* of Malabar. In Ptolemy, Paralia Sore-tanum; and Sore is Core, Coro-mandel. Coro-mandalam of Paolino, the Millet Country. See d'Anville, Antiq. 127.

[10] Εἰς πέλαγος ἔκκειται.

lized, and frequented by vessels equipped with masts (*e*) and sails. The island itself [is so large, that it] extends almost to the opposite coast of Azania [in Africa]. Here pearls, precious[11] stones, fine muslins, and tortoise-shell, are to be obtained.

[But returning now to the coast; above Kámara, Podooka, and Sopatma, lies] Masalia, a district which extends far inland. In this country a great quantity of the finest muslins are manufactured[12]. And from Masalia the course lies eastward, across a bay, to Dêsarênè, where the ivory is procured of that species[13] called Bôsarè.

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(*e*) Ἰστιοπεποιημένοις. I conclude that this means, they were vessels adapted to distant voyages, east or west, in contradistinction to the sangara and monoxyla, employed only on the coast; and the text of Strabo confirms this opinion: Ταπροβάνην . . . διέχειν δὲ τῆς ἠπείρου πλεῖν ἡμερῶν εἴκοσι, ἀλλὰ κακοπλοεῖν τὰς ναῦς, φαύλως μὲν ἰστιοπεποιημένας, κατεσκευασμένας δὲ ἀμφοτέρωθεν ἐγκοιλίων μητρῶν χωρίς. The vessels here meant are the monoxyla, built from the bottom without ribs, ill equipped with sails, and heavy sailers. In these vessels it was twenty days sail from the continent to Ceylon, but in others only seven: both distances are in excess, but they are palliated by Vossius, who supposes the distance to be measured from Covalam in Travancoor, to Pointe du Galle in Ceylon, as Pliny places the port of Ceylon on the south side of the island. Pliny has likewise a reference to Strabo, when he speaks of twenty days sail from the Prasii to Ceylon, in the paper-ships of Egypt, and seven in the Greek vessels. Prasii is evidently a corrupt reading; and how far paper-ships, or ships composed of the biblos, should venture on these voyages, is dubious. That they were used on the Nile is true: Radicibus papyri incolæ pro ligno utuntur. Ex ipso quidem papyro navigia contexunt. (Plin. lib. xiii. 2. & v. 22. See Salmas. 1110.) It is likewise to be noticed, that Ἰστιοπεποιημένοις is a reading of Salmasius for πλιοναυκιστίνει, in the Basil edition; but Vossius reads it τὸ πλεῖον εἰκοστίνῃ, *they perform it generally in twenty days*. This correction accords with Pliny, and approaches nearer to the text, corrupted as it stands; in fact, Salmasius takes Ἰστιοπεποιημένοις from Strabo, and Vossius ἡμερῶν εἴκοσι.

NOTES.

[11] Transparent.

[12] Γίνονται.

[13] The Arabs of Renaudot mention the rhinoceros, or karkandam, in the same country. P. 17.

Leaving Dêsarênè the course is northerly, passing a variety of barbarous tribes; one of which is styled Kirrhádæ, a savage race, with noses flattened to the face. Another tribe are the Bargoosi; and there are others (*f*), distinguished by the projection of the face like that of the horse, or by its length [14] from the forehead to the chin; both which tribes are said to be cannibals.

After passing these, the course turns again to the east, and sailing with the coast on the left, and the sea on the right, you arrive at the Ganges, and the extremity of the continent towards the east, called Khrusè [or the Golden Chersonese].

The Ganges is the largest river of India; it has an annual increase and decrease, like (*g*) the Nile; and there is a mart on it of the same name, through which passes a considerable traffic, consisting of pearls, betel, the Gangetic (*h*) spikenard, and the Gangetic muslins, which are the finest manufacture of the sort.

In this province also there is said to be a gold mine, and a gold coin called Kaltis (*i*).

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(*f*) Whenever an author arrives at the Country of Monsters and Anthropophagi, I conclude he is at the end of his knowledge: anthropophagi, however, there are still said to be in the Andaman Islands, and the fact is certainly proved in New Zealand; but the varieties of the human species, with horses' heads, with tails, or with heads which grow beneath their shoulders, still remain to be discovered. Of the Kirrhádæ, or Dêsarênè, I have found nothing; but I place the latter in Orissa. The ivory called Bôsarè may be the horn of the rhinoceros, much coveted in the East, and the animal is sometimes called Βῶς μονόκερως, Bos unicornis.

(*g*) The solstitial rains produce the same effect on both rivers.

(*h*) See the Catalogue. Νάρδος, the regular importation of this odour, is from the Ganges or Bengal, whither it is to this day brought from Thibet.

(*i*) We have no account of a gold mine; but a gold coin called Kalteen, or Karteen, is still known in Bengal. As. Res. vol. v. p. 269.

NOTE.

[14] Ἱππιοπροσώποι, μακροπροσώποι.

Immediately after leaving the Ganges, there is an island in the ocean called Khrusè (*k*) or the Golden [15] Isle, which lies directly under the rising sun, and at the extremity of the world towards the east. This island produces the finest tortoise-shell that is found throughout the whole of the Erythrêan Sea.

But still beyond this, immediately under the [16] north (*l*), at a certain point [17] where the exterior sea terminates [18], lies a city

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(*k*) Khrusè is mentioned as an island by Mela, Dionysius, &c. as a Chersonese by Ptolemy. It may be Ava, Pegu, or Siam, for they were all ostentatious of gold; but, placed as it is here, next to the Ganges [κατ' αὐτὸν τὸν ποταμὸν], its position must be erroneous. Ptolemy is more correct in fixing the Kirrhádæ in this situation, whom our author mentions previous to the Ganges; for Kirrhádæ bears some resemblance to the Hidrange or Kadrange of the Arabs, which seems to be Arracan; and if Arracan may be extended to comprehend the little district of Chitagong, it is contiguous to the Ganges, or rather to the Megna. Ptolemy adds, that the best betel is procurable in this province (see Dissertation); and it is from hence that the Sêsatæ, or Bêsadæ, who are the Tartars of Lassa or Thibet, carry that article to the northern provinces of China.

(*l*) This strange passage I have rendered literally, but it is unintelligible without a comment. [*Under the north*] implies the same as is repeated afterwards, *under the Lesser Bear*. [Where the sea *terminates outwards*] intimates the existence of a circumambient ocean, like the Mare Tenebrosum of the Arabian geographers; to comprehend which, we must imagine the Golden Chersonese the last region east of the *known* world; but still that there is an ocean beyond it, surrounding the whole earth, and that Thina lies inland, in a country that is washed by this ocean. This notion, en-

NOTES.

[15] The Golden Continent and the Golden Island are evidently distinct here, as the Golden Province and Golden Chersonese are in Ptolemy.

[16] See Hackluyt, vol. i. 593. The extreme cold, and the same mode of exchange, are placed at Grustintzi and Serponowtzi, not far east of the Oby. These nations die on the 27th of November yearly, and revive on the 23d of April; that is, as we may suppose, they retire under ground, like the Kamskadales.

This account is taken out of a Muscovite Journal, by Sigismundus Herbestein. He speaks of Cathay, but evidently does not go beyond Siberia.

[17] Εἰς Σινῶν τινα τόπον. Σινῶν is an insertion of Salmasius's.

[18] The Mare Tenebrosum of the Arabs.

called Thina[19], not on the coast, but inland; from which both the raw material[20] and manufactured silk are brought by land, through Bactria, to Barugáza, or else down the Ganges [to Bengal], and thence by sea to Limúrikè, or the coast of Malabar (*m*).

To Thina itself the means of approach are very difficult; and from Thina some few [merchants] come, but very rarely; for it lies [very far remote] under the constellation of the Lesser Bear (*n*), and is said to join the confines of the Euxine Sea, the Caspian, and the Lake Mêôtis (*o*), which issues at the same mouth with the Caspian into the Northern[21] Ocean.

On the confines, however, of Thina, an annual[22] fair or mart is established; for the Sêsatæ, who are a wild, uncivilized tribe, assemble there with their wives and children. They are

REMARKS.

tangled as it is by an erroneous situation, and confused expression, still intimates, in accordance with Mela and Pliny, that Thina is the last country of the known world, and that there is nothing beyond it but the sea. If the author had an idea of a sphere, this sea would extend to Spain, which is Strabo's conception; if he thought the earth a flat surface, this sea is the ocean that surrounds it.

(*m*) See the Dissertation. All that went by land to Bactria, passed down the Indus to Guzerat; all that came through Thibet or Lassa, passed down the Ganges or Brama Putra to Bengal.

(*n*) See the Dissertation.

(*o*) For this inconsistency consult the Dissertation.

NOTES.

[19] . . . Τῶν Σινῶν ἐστὶν ἔθνος, καὶ ἡ τούτων Μητρόπολις, ἥτις Θεῖναι προσαγορέυεται· ὅριον τῆς ἐγνωσμένης γῆς καὶ ἀγνώστου τυγχάνουσα. Marcian Heracl. Hudson, p. 14.

Theinæ, the capital of the Sinæ, is the boundary between the known and unknown part of the world. In this Marcian is more perspicuous than Ptolemy, whom he usually follows.

[20] Τὸ ἔριον.

[21] Τοῖς ἀπεστραμμένοις μέρεσι.

[22] Compare the Russian account of Sigismundus, supra.

described as a race (*p*) of men, squat and thick [23] set, with their face broad, and their nose greatly depressed. The articles they bring for trade are of great bulk, and enveloped in mats [24], or sacks, which in their outward appearance resemble the early leaves of the vine. Their place of assembly is between their own borders and those of Thina; and here spreading out their mats [on which they exhibit their goods for sale], they hold a feast [25] [or fair] for several days, and at the conclusion of it, return to their own country in the interior.

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(*p*) If these Sêsatæ are the Bêsadæ of Ptolemy, which is generally allowed by the commentators from the attributes assigned to them by both, the Bêsadæ of Ptolemy are placed north of Kirrhâdia or Arracan, and correspond very well with the Tartars of Lassa *, who might naturally be the carriers between China and Bengal. But why the betel-leaf should be carried in this form from Arracan to China, in order to be made up with the Areka nut, and then returned to India by the Chinese under the denomination of Malábathrum, is difficult to comprehend. The distinction between the leaf and the nut seems to be preserved in petros and malábathrum; for that petros is the betel, or betre, cannot well be doubted, when it is described as resembling the young leaves of the vine; for the betel is a delicate species of the pepper-plant, and that plant is almost constantly described as similar to the vine †.—The description of the Sêsatæ leaves little room to doubt that they are Tartars; and we have here, upon the whole, a description of that mode of traffic which has always been adopted by the Chinese, and by which they to this hour trade with Russia, Thibet, and Ava. See the Dissertation.

NOTES.

[23] Κολοβοὶ.

[24] Ταρπόναις, sirpeis, literally mats made of rushes.

[25] The word, in the original edition, was ἐρπάζουσιν; for which Salmasius reads ὀρτάζουσιν. I propose ἀγοραάζουσιν, they deal or traffic.

* See something very like this in Hackluyt, ii. 257. Fitch. Where there is a manifest connexion relative to Recon (Aracan) and Bottanter (Boudtan); where also Tartars, and Muscovites, and Chinese, are mentioned; and the cows and cows' tails of Thibet.

† See Nieuhoff in Churchill, vol. ii. p. 330. where the Pinang palm-tree, the delicate parent of the Areka nut, is given in the same plate with the betel,—evidently resembling a vine. The nut is called Faufel by the Arabians, and Pynang by the Malays.

Query, Pulo Pinang, the Island of Areka Nut? on the coast of Malacca, now Prince of Wales's Island?

Upon their retreat, the Thinæ, who have continued on the watch, repair to the spot, and collect the mats which the strangers left behind at their departure: from these they pick out the haulm, which is called PETROS, and drawing out the fibres, spread the leaves double, and make them up into balls, and then pass the fibres through them. Of these balls there are three sorts—the [26] large, the middle-sized, and the small: in this form they take the name of Malábathrum; and under this denomination, the three sorts of that masticatory are brought into India by those who prepare (*q*) them [27].

All the regions beyond this [towards the north] are unexplored, either on account of the severity of the winter, the continuance of the frost, or the difficulties of the country; perhaps also the will of the gods has fixed these limits to the curiosity of man.

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(*q*) Ὑπὸ τῶν κατεργαζομένων αὐτὰ. Those who manufacture them—who are these but the Sinæ? If I had found that the Chinese brought them by sea, as they did to Ceylon in the time of Cosmas, my evidence for the performance of the voyage, either to or from China, would have been complete; but on this slender ground I dare not assert it, nor do I think it probable, for the betel might come down the Ganges as well as silk. The whole seems to be an irremediable confusion, with particulars founded on truth, and a total that is inconsistent.

NOTES.

[26] Ἀδρόσφαιρον, μεσόσφαιρον, μικρόσφαιρον.—— These terms are applied by Pliny to the spikenard. Lib. xii. c. 26. The spikenard was considered specifically as *the leaf*; how erroneously, may be seen in the catalogue. Hence it became confounded with the betel *leaf*, always used with the Areka *nut*.

[27] Ὑπὸ τῶν κατεργαζομένων, rendered by Salmasius, Those who finish them, or make them up for exportation.

DISSERTATIONS.

ADVERTISEMENT.

THE following Dissertations arose out of the contemplation of various questions which occurred during the progress of the work. The discussion of them might have been thought too long for the text, and they are therefore thrown into their present form, as affording matter of information and curiosity to those who take a pleasure in researches of this kind. It is much to be wished that the Dissertation on the Sêres should be consulted immediately after the Sequel to the Periplûs, Part II. with which it is more immediately connected, and from which it has been (not without concern) separated by the necessary arrangement of the present Edition.

PART I.

DISSERTATION I.

ON THE

ADULITICK INSCRIPTION *collected from* CHISHULL, MONTFAUCON, MELCHISEDECK THEVENOT, *and other* AUTHORS.

[Part I. Page 111.]

THE Adulítick Inscription is in itself one of the most curious monuments of antiquity, but the preservation of it, and the knowledge which we have of it at this day, are still more extraordinary than the inscription itself. Cosmas (styled Indicopleustes, from the supposition that he had navigated the Indian Ocean) copied a Greek inscription at Adûlè, which has since appeared to relate to Ptolemy Euérgetes, and to prove that he had nearly conquered the whole empire of the Seleucidæ in Asia, and the kingdom of Abyssinia in Africa: two historical facts of considerable importance; notwithstanding, his success in Asia was scarcely discovered in history [1], till this monument prompted the inquiry, and the conquest of Abyssinia still rests upon this evidence alone.

The veracity of Cosmas, in his report of this inscription [2], is established upon proofs which have nearly united all suffrages in its favour; some obscurity there still remains, and some few

[1] It does not now appear in any history to the extent that the marble assumes, or in any one author that I can discover, except a single sentence cited out of Polyænus by Bayer. Bactria, p. 61. See infra.

[2] Valkenaer (in Catulli Callimacheam, p. 90.) condemns it as a forgery; but his principal objections are, 1. to the inaccuracy of the language; 2. to the mention of Syria: that is, if Ptolemy received it from his father, why should he invade it?

objections naturally arise, to which Chishull has given a sufficient answer. But there is one observation of his that is irrefragable, when he says that Cosmas himself did not know[3] to which of the Ptolemies[4] it belonged, and consequently he could not be the forger of particulars which accorded with one, and one only of the whole Dynasty.

The work of Cosmas is styled Topographia Christiana, and is intended to prove that the earth is a plane, in opposition to the philosophical notion of its being a sphere, which the author conceived to be an heretical opinion, contrary to the revelation of the scriptures. He had himself travelled much, and in the parts he visited, he still found they were all on a plane, as well as Greece; in consequence of this notion, his deductions are rather extraordinary; but the facts he relates, and the countries he describes, are given with all the characters of truth that simplicity can afford.

There *were*[5] two copies of his work, one in the Vatican, supposed to be of the ninth century, and another at Florence in the Library of Lorenzo[6], attributed to the tenth. In 1632, Leo Allatius published the Adulitick Inscription from the copy in the Vatican[7]; and this was republished by Berkelius in 1672, and again by Spon in 1685, both from the extract of Allatius. The same inscription was again published by Melchizedeck Thevenot, in his Collection of Voyages, from the Florentine

[3] He certainly likewise did not know the geography he details, and therefore he could not forge it. See Leukè Komè, a place on the Arabian side of the gulph, which he confounds with Leukogen on the Ethiopick side, in his own remarks on the marble.

[4] See p. 146. εἷς ἂν εἴη καὶ οὗτος ὁ Πτολεμαῖος τῶν βασιλευσάντων [Πτολεμαίων] ἢ ὁ Φιλομήτωρ, ἢ ὁ νεώτερος Εὐεργέτης, ἢ ὁ πρὸ Κλεοπάτρας τῆς ὑστάτης ὁ καλούμενος Διονύσου.

[5] *Were*, we say, because after the irruption of the Vandals of 1798, who can say they *are?*

[6] See the account of this library in Roscoe's Life of Lorenzo.

[7] Chishull.

copy, extracted by Bigot. And finally the whole Topographia Christiana was edited by the indefatigable B. Montfaucon[8] in 1706. Spanheim, Vossius, and Vaillant, all bear testimony to the authenticity of the inscription, and the internal evidence is such as hardly to leave a doubt upon an unprejudiced mind. Let us now hear Cosmas speak for himself.

Extract from the Topographia Christiana[9] of Cosmas, written A. D. 545, p. 140, ed. Montfaucon.

Adûlè is a city of Ethiopia, and the port of communication with Axiômis[10], and the whole nation, of which that city is the capital; in this port we carry on our trade from Alexandria and the Elanitick Gulph[11]; the town itself is about two miles from the shore, and as you enter[12] it on the western side, by the road that leads from Axiômis, there is still remaining a chair or throne which appertained to one of the Ptolemies, who had subjected this country to his authority. This chair is of beautiful white marble[13], not [so white indeed as the] Pro-con-

[8] The publication is styled Nova Collectio Patrum, in two vols. folio, Paris 1706.

[9] After the peace made with Seleucus for ten years, and renewed afterwards for ten years more, scarce a word occurs in history concerning Ptol. Euérgetes, till this account on the marble was discovered by Cosmas more than 700 years after the invasion of Ethiopia by this monarch. Chishull.

[10] Written in different authors Axûma, Axôma, Axiôma, and Axiômis.

[11] The trade of Solomon and Hiram was carried on from Ezion Geber, at the head of the Elanitick Gulph. And in all ages, I imagine Ela, Aila, or Ailath, to have been the mart to which the Phênicians of Tyre resorted, or to Phênicon. Ela and Phênicon may at different times have been in the possession of the Idumêans, Nabathêans, Petrêans, Egyptians, Tyrians, Hebrews, or Romans.

[12] See the view of Adûlè in Cosmas's drawing, in which both pyramids and obelisks appear. Mean as the execution is, these are a certain proof that the manners and customs of Abyssinia in that age were Ethiopick and Egyptian. Bruce found the same at Axûma, and if he could have stopped at Meroè to examine the ruins he there passed, assuredly they would have been Egyptian also or Ethiopick. He saw no remains of ruins from Axûma to Meroè.

[13] Λευκιμασίᾳ, valuable, costly.

nesian [14], but such as we employ for marble tables; it stands on a quadrangular base, and rests at the four corners on four slender and elegant pillars [15], with a fifth in the centre, which is channeled in a spiral form. On these pillars the seat is supported, as well as the back of the throne, and the two sides on the right and left.

The whole chair with its base, the five pillars, the seat, the back, and the two sides, is of one entire piece, carved into this form; in height about two cubits and a half, and in shape like a patriarch's chair [16].

At the back of the chair is a tablet of basanite [or touch] stone [17], three cubits in height, the face [18] of which is an [oblong] square, while the whole mass is in the form of a lambda, rising to a point at the top, and spreading at the bottom, Λ. But the front [19] is quadrangular. This tablet is now fallen behind

[14] The island of Proconnêsus in the Propontis naturally supplied Constantinople with marble, with which it so much abounded, as to change its name to Mármora, and to give that title to the Propontis, now called the Sea of Mármora. A monk of Constantinople of course referred to the marble with which he was most acquainted. The church of Santa Sophia is built with Proconnesian marble.

[15] Λεπτὰ κιόνια.

[16] Cathedra. See the patriarchal chair of the see of Alexandria [Pococke, vol. i. plate 2.], very nearly resembling Cosmas's drawing.

[17] Basanites is supposed to be an Egyptian marble or granite, and the name also to be Egyptian, and not Greek from βάσανος, as it is usually esteemed. See Chambers's Dictionary, art. Touchstone. The Greek term βάσανος might possibly be derived from Egypt, the country where the touchstone was procured. But it is perfectly Greek in its usage and derivation. It should seem to be the same stone as that of the Alexandrian inscription, and adds a confirmation to the veracity of Cosmas, as both inscriptions are upon the same material, particularly adapted to this purpose from its hardness.

[18] Τετράγωνον ὡς εἰκών. I render this literally, but not correctly. Chishull writes, ad modum tabulæ pictoriæ, but how εἰκὼν has that sense I cannot determine. I suppose this basanite stone or marble to be in the form of a wedge, quadrangular on the broad face, and like a Λ on the sides, the broad superficies is so represented in the drawing of Cosmas, a parallelogram broken at the corner. The channeling of this tablet is delineated as carried round the broken corner, whether this is the error of Cosmas or the engraver must be determined by the MSS.

[19] Σῶμα, body, the whole body or mass of a marble in the form of a lambda cannot be a quadrangular, but a wedge; it is one of the

the chair, and the lower part of it is broken and destroyed, but the whole of this [stone or] marble and the chair itself is [in a manner covered over and] filled with Greek characters.

Now it so happened that when I was in this part of the country, about five-and-twenty years ago[20], more or less, in the beginning of the reign of Justin the Roman emperor, that Elesbaan[21] the king of Axiômites, when he was preparing for an

faces of this wedge which must be meant, and this would be quadrangular (τετράγωνον), as represented in the drawing of Cosmas, that is a parallelogram.

[20] The reign of Justin commences in 518. The expedition of Elesbaas is usually placed in 525, the eighth year of Justin, but the marble might have been copied a year or two years before the expedition.

[21] It is a most remarkable circumstance, that in a history so obscure and wild as that of Abyssinia, any fact should be established upon such clear and satisfactory grounds, as this of the reign of Elesbaas and his expedition into Arabia. But the authorities adduced by Baronius, Montfaucon, Ludolfus, Chishull, and Bruce are so express, that there cannot remain a doubt; and if that reign is established, the veracity of Cosmas needs no other support. Now it appears from the evidence they have adduced, that the sovereigns of Abyssinia, in the reign of Justin, about the year 525, had extended their power into the country of the Homerites, which is a district of Sabêa, where they had a governor residing; it appears also that some Abyssinians had been put to death by Dunaanas, (one of the native chiefs in Arabia, and a Jew,) who are still considered as martyrs to their faith, and that Elesbaas undertook an expedition into Arabia, in which he was successful, and punished the assassin of his subjects. His Abyssinian title was Caleb el Atseba, or Caleb the *Blessed*; whence the Greek corruption of Elesbas, Elesbaas, and Elesbaan (Bruce, vol. i. p. 503. Ludolf, p. 165. Hist. of Ethiopia). Bruce assures us, that this history is confirmed by the Chronicle of Axûma, and Montfaucon cites Nônnosus in Photius, whose testimony corroborates the chronicle in the amplest manner, (Montfaucon Nova Collectio Patrum, tom. ii. p. 140.) for Nónnôsus speaks of himself as ambassador from Justin to Kaisus, an Arab prince of the Khîndini and Maadêni, and to Elesbáas king of Axûma, agreeing so much both in time and name with the Elesbáas of Cosmas, that it induces a conjecture that Cosmas was a monk in the suite of the ambassador (see Photius, p. 6. ed. Geneva, 1612, with the citation of Nicêphorus in the margin). But without taking this into the consideration, it is a natural consequence, if Elesbáas is proved to be the king of Axûma in that age, that the account of Cosmas is worthy of credit. Bruce adds, that Mahomed in the Koran mentions Dunaanas [Dhu'lnowas] not by name, but as master of the *fiery pits*, alluding to the martyrs who were burnt (vol. i. p. 516.) Other authors cited by Montfaucon are Metaphrastus, Callistus, Abúlpharage. Bruce has this and much more of his learning from Ludolphus. Comment. p. 233. See p. 348. The book of Enoch, and the war of Michael with Setnael, *i. e.* Satan. See also Gibbon, iv. 267, et seqq. who has nicely elicited the whole, and made it consistent.

expedition against the Homêrites [22] [in Arabia] on the other side of the Red Sea, wrote to the governor of Adûlè, directing him to take a copy of the inscription [23], which was both on the chair of Ptolemy, and on the tablet, and to send it to him [at Axiômis].

The governor, whose name was Asbas [24], applied to me and to a merchant of the name of Menas, to copy the inscription; Menas was [a Greek of my acquaintance, who afterwards became] a monk at Raithû [25], and died there not long ago. We [undertook the business together, and having completed it,] delivered one copy to the governor, and kept another for ourselves. It is from this copy that I now state the particulars of the inscription, and I ought to add, that in putting them together [and drawing my own conclusions from them], I have found them very useful for forming a judgment of the country, the inhabitants, and the distances of the respective places. I ought to mention also that we found the figures of Hercules and Mercury among the carvings, at the back of the seat [26]. - - - - - - - - - - -

- - - - - - - - - - - - -

This is the form of the seat [27] and the marble. And Ptolemy himself [seems to speak in the words of the inscription].

[22] Cosmas himself, in another part, describes the country of the Homêrites as lying on the coast of Aden beyond the straits; but as they occupy the angle of the continent, their territory may extend both within and without the straits. See Ptolemy, Asia, tab. vi.

[23] It is highly probable, that Elesbaan understood the language, as he was a Christian, and of the church of Alexandria. His intercourse also with the Greek emperor at Constantinople strengthens this supposition. And in the earlier age of the Periplûs we find Zôskales master of that language.

[24] Asbas and El-Asbas must be the same name, and there is nothing extraordinary in supposing that both the king and the governor might both assume the title, atseba, *the blessed, the saint*.

[25] Raithu is a monastery near Tor and Mount Sina in Arabia.

[26] I have here omitted a conjecture of the monk foreign to the subject.

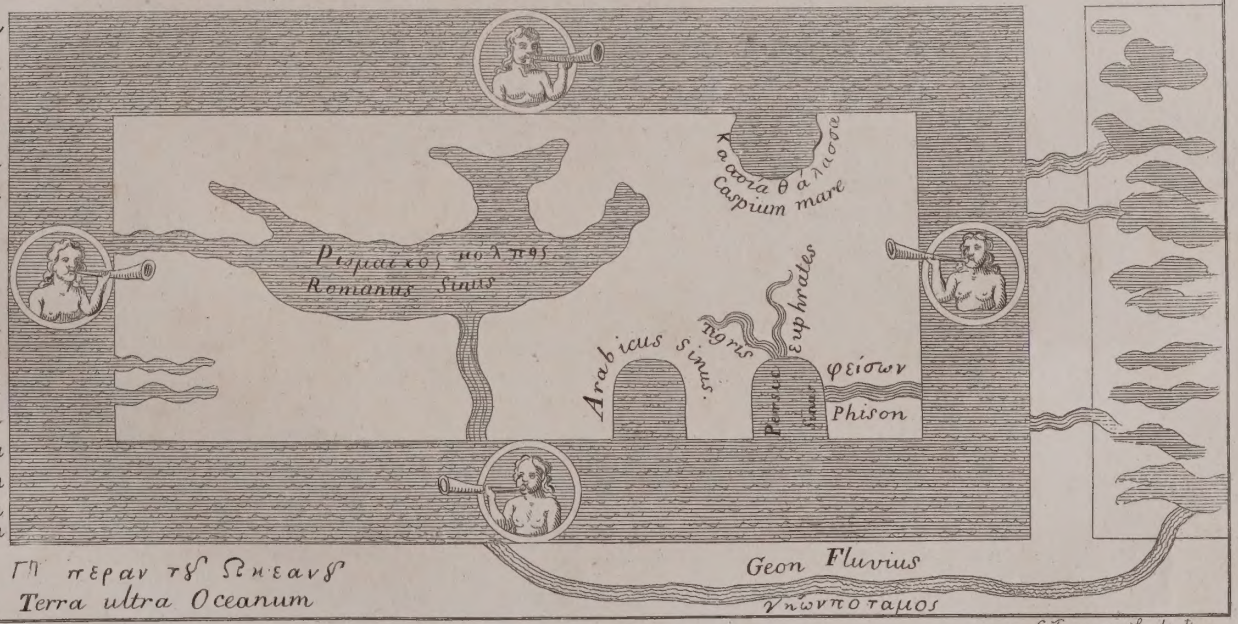
[27] Cosmas says, that malefactors were ex-

Vaillant Hist. Ptol. p. 52.

Γῆ περαν τῆς Ὠκεανῆς ἐν θα πρὸ τῆς κατακλυσμοῦ κατῴκουν οἱ ἄνθρωποι
Terra ultra Oceanum, vbi ante diluvium habitabant homines.

γῆ περαν τῆς Ὠκεανῆς

Terra ultra Oceanum



Terra ultra Oceanum

C. Turner Sculp.

London Published May 1st 1800. by the Revd Dr Vincent, Deans Yard Westminster.

(Here was inserted a drawing by Cosmas himself represented in the previous plate, and copied from the MS. by Montfaucon.)

Inscription upon the figure or square table in the form of a Λ.

Ptolemy the Great, king, son [28] of Ptolemy, king, and Arsinoe, queen, gods [29], brother and sister [30]; grandson of the two

ecuted before this chair in his time; but whether it was a custom continued from the time of Ptolemy he could not say. Bruce mentions a stone at Axûma existing still, on which the kings of Abyssinia were enthroned and crowned, and which likewise had an inscription with the name of Ptolemy Euérgetes. Had either of these facts any concern with a tradition or custom derived from Ptolemy? See Bruce, vol. iii. p. 132. It is extraordinary that the marble does not mention Axûma; and more so, if upon the credit of Bruce we conclude, that Ptolemy visited Axûma in person. That indeed does not quite follow from the stone being found there with his name. But one inference we may make in Cosmas's favour, he knew Axûma, he knew it was the capital of the country; if he had forged the inscription, Axûma would doubtless have been admitted.

[28] This genealogy at the commencement does not quite agree with another at the conclusion, where the king says, that Mars was the father *who begat him* (ὃς μὲ καὶ ἐγέννησε). But as these Macedonian sovereigns imitated Alexander in his vanity, if they would have gods for their ancestors, it is not to be thought strange, that their genealogy should fluctuate. I think the inconsistence due to the vanity of the king, and that it ought not to be attributed to the mistake of Cosmas, or to his lapse of memory.

[29] In the character of ΘΕΩΝ ΑΔΕΛΦΩΝ, *gods, brother and sister*, and ΘΕΩΝ ΣΩΤΗΡΩΝ, *gods preservers*, we have one of the most illustrious proofs of the authenticity of the inscription.

Beger had objected that on the coins of Ptolemy Sôter and Bereníkè, ΘΕΩΝ only was found; and on those of Philadelphus and Arsinoè, ΑΔΕΛΦΩΝ only. But soon after the objection was started, two gold coins were brought to light with the united heads of Ptolemy Sôter and Bereníkè, of Philadelphus and Arsinoè. The former had no inscription, but the latter displayed the ΘΕΩΝ ΑΔΕΛΦΩΝ, exactly corresponding with the Adulitick marble. Vaillant, Hist. Ptol. Regum, p. 52. ΣΩΤΗΡΩΝ was not found, but an equivalent is cited from Theocritus, Idyl. 17.

Μητρὶ φίλᾳ καὶ πατρὶ Διὼδεας ἵσατο νηὸς.
Ἐν δ' αὐτοῖς χρυσῷ περικαλλέας ἠδ' ἐλέφαντι
Ἵδρυσεν, πάντεσσιν ἐπιχθονίοισιν ΑΡΩΓΟΥΣ.

In which they are evidently consecrated as deities with the title of ΑΡΩΓΟΥΣ. Chishull.

But whatever doubt there might have remained, from the want of Σωτήρων on the coins, it is now fully removed by the inscription found on the inestimable black stone, or basanite, brought from Alexandria by Lord Hutchinson, and now in the British Musêum: for we there find the succession of the kings of Egypt, from the founder of the family to Epíphanes the fifth of the series. They are

sovereigns Ptolemy, king, and Bereníkè, queen, gods preservers[31]; descended on the father's side from Hercules son of Jupiter, and on the mother's side from Dionúsus son of Jupiter, [that is, Ptolemy son of Ptolemy and Arsinoè, grandson of Ptolemy and Bereníkè,] receiving from his father the kingdom of Egypt, Africa, Syria, Phênicia, Cyprus, Lycia, Caria, and the Cyclades, invaded Asia with his land and sea forces, and with elephants from the country of the Trôglodytes and Ethiopians. This body of elephants[32] was first collected out of these countries by his father and himself, and brought into

all GODS, both kings and queens: the three first indeed are alone concerned in the present inquiry; but the whole series stands thus:

I. Ptolemy, son of Lagus, and his queen Bereníkè, styled Θεῶν Σωτήρων, from the title of the king,

Πτολεμαῖος Σωτὴρ, Ptolemy the Preserver.

II. Ptolemy II. and his two queens Arsinoè, the latter of whom was his sister, styled Θεῶν Ἀδέλφων, from the title of the king,

Πτολεμαῖος Φιλάδελφος, Ptolemy the Fraternal.

III. Ptolemy III. and his queen Bereníkè, styled Θεῶν Ευεργέτων, from the title of the king,

Πτολεμαῖος Ἐυεργέτης, Ptolemy the Benefactor.

IV. Ptolemy Philópator, with his queen Arsinoè, styled Θεῶν Φιλοπατόρων, from the title of the king,

Πτολεμαῖος Φιλοπάτωρ, Ptolemy the Filial.

V. Ptolemy Epíphanes.

This series not only proves the propriety of applying the title of Θεῶν Σωτήρων to the first Ptolemy and Bereníkè, but confirms the veracity of Cosmas and the authenticity of the Adulítick Inscription: for its form, order, and assignment of the titles is in perfect correspondence with the Alexandrian marble. Cosmas had not knowledge sufficient to invent this, for he does not know to which of the Ptolemies it belongs; and if he had collected the facts from history or tradition, the imposture must have been discovered, if the titles had not corresponded.

A second objection of Beger's was, that Philadelphus had no children by Arsinoè his wife and sister. But the Scholiast on Theocritus, Idyl. 17. fortunately furnished an answer to this also, who says that Ptolemy Philadelphus was first married to Arsinoè, daughter of Lysímachus, by whom he had Ptolemy, (afterwards called Euérgetes,) Lysímachus and Bereníkè. But that having discovered this Arsinoè engaged in some conspiracy, he banished her to Koptus, and then married his sister Arsinoè, and adopted as her children those he had had by the other Arsinoè. This Arsinoè, his sister, was worshipped by the Egyptians under the title of Diva Soror, and Venus Zephyritis. Chishull.

[30] ΘΕΩΝ ΑΔΕΛΦΩΝ.

[31] ΘΕΩΝ ΣΩΤΗΡΩΝ.

[32] A fact noticed by all the historians, and preserved by Agatharchides, as almost the only commerce remaining on this coast in the time of Philomêtor.

Egypt and tamed for the service of war. With these forces Ptolemy advancing into Asia[33], reduced all the country on this side the Euphrátes, as well as Cilícia, the Hellespont, Thrace, and all the forces in those provinces. In this expedition, having captured also many Indian elephants, and subjected all the princes to his obedience, he crossed the Euphrátes, entered Mesopotámia, Babylónia, Susiána[34], Persis, Mêdia, and the whole country as far as Bactria[35], and brought the whole under his dominion. [In Persis and Susiána] he collected all the spoils of the temples which had been carried out of Egypt by [Camby'ses and] the Persians, and conveyed them back again to that country[36], with all the treasures he had ac-

[33] So very little of this conquest appears in history, that, having this inscription only in Thevenot's work, I had doubted the whole, till I met by accident with the passage in Appian, which confirmed the fact, and again attracted my attention; but having afterwards procured Chishull's work, (Antiquitates Asiaticæ,) I found he had anticipated this passage, and many of the other observations which I had taken some pains to collect. See Ap. Syriac. p. 635. Schweighæusser's ed. St. Jerom on Daniel mentions these conquests; and Appian notices that the Parthian revolt commenced upon the distress of the Syrian monarchs in this war.

It is very extraordinary that venerable Bede has this account from Jerom. Bede is very clear and consistent, whether he copies Justin or St. Jerom. See Bed. Chronic. p. 14. ed. Smith. Capta Syria Cilicia & prope universa Asia, &c.

[34] Rollin touches on this expedition of Ptolemy, and makes it stop at the Tigris, vol. vii. p. 307. but Ptolemy here expressly says he entered Susiána, and as Rollin confesses the restoration of two thousand five hundred Egyptian statues, we may ask, where could they be found except at Susa? The cause of this invasion was the insult offered to Bereníkè, sister of Euérgetes, whom Antíochus Theos had divorced, and whom Seleucus, his son by Arsinoè, finally put to death. See Justin, lib. xxvii. c. 1. Justin mentions that he would have subdued the whole kingdom of Seleucus, unless he had been recalled by disturbances in Egypt. The two thousand five hundred statues, and forty thousand talents, I find in the notes on Justin, but whence deduced I know not.

[35] Ptolemæus Euergetes devicit Seleucum; omnia sine bello et certamine occupavit a Tauro usque in Indiam; Bayer, p. 61. Bayer moderates the conquest, and appeals to Theócritus and the Adulitick marble. But the marble certainly confirms in a great degree the citation, which is from Polyænus.

[36] It is for this favour to the natives that he is said to have been styled Euérgetes, the benefactor.

cumulated in his conquests, and all the forces which had attended him on the expedition; all these he embarked upon the canals[37] * * * * * * *

This, says Cosmas, was the inscription on the figure or tablet, as far as we could read it, and it was nearly the whole, for only a small part was broken off. After that we copied what was written on the chair, which was connected with the inscription already given, and ran thus:

After this, having with a strong hand compelled the tribes bordering upon my own kingdom to live in peace, I made[38] war

[37] The inscription is here manifestly left imperfect, and that apparently on account of that part of the tablet which was mutilated. We are therefore at liberty to conjecture what these canals were, consistent with the nature of the countries alluded to. Chishull looks to the canals on the Euphrates; but let us reflect, that the palace of Camby'ses was at Susa; thither the spoils of Egypt were sent by the conqueror, and there they would be found by Euérgetes, if they had not been removed by the Macedonians, or the kings of Syria. Much notice is taken in history of the treasures at Susa being plundered; but the spoils of temples, Egyptian gods and statues had little to tempt the avarice of the conquerors, and would have been moved to little purpose, at a great expence. It is highly probable, therefore, that Euérgetes found them still at Susa; and if we consider that Susiána was of all the provinces of the Persian empire, the one most furnished with, and most intersected by canals, we ſhall have no difficulty in concluding, that these cumbrous deities were embarked upon that canal which united the Eulêus by the Mesercan with the Tigris; and that they were brought by this stream, now called the Suab or Soweib, into the Euphrates near Korna. From Korna they would be conveyed up the Euphrátes to Thápsacus, or higher, and require no other land carriage but from that point to the bay of Issus. This would certainly be the best and least expensive conveyance from Susa to Egypt, and there could be no other water carriage unless by the Eulêus to the Gulph of Persia, and so round the continent of Arabia into the Red Sea. If it could be proved from history, that the fleets of Euérgetes had ever circumnavigated Arabia, we might admit this as the readiest mode of conveyance; but I have searched history in vain to establish this conclusion. If it was contained in the point of the tablet broken, we have much reason to lament the loss; for so persuaded am I of the authenticity of the inscription, that I should admit the fact without hesitation, if found there. I can only now add, that the canal from Susa to the Tigris, and the carriage thence up to Thápsacus, afford the most probable clue to this passage.

[38] Mark the use of the first person. Whe-

upon the following nations[39], and after several battles reduced them to subjection.

First the nation of Gazè, next Agamè and Siguè. These I subdued, and exacted the half of their property by way of contribution for my own use[40].

After these I reduced Ava and Tíamo or Tziamo, Gambêla and the country round it, Zingabênè, Angabè, Tíama, and the A'thagai, Kálaa, and Semênè, (a nation[41] beyond the Nile,)

ther the change from the third person to the first be caused by Cosmas or the inscription, must be doubtful. We might well suppose both inscriptions to run in the first.

[39] Cosmas has many curious particulars of these countries himself; as, 1st. The Homerites are not far distant from the coast of Barbaria [Adel]; the sea between them is two days' sail across. This proves that he places the Homerites somewhere east of Aden on the ocean.

2. Beyond Barbaria [Adel] the ocean is called Zingium [Zanzibar the Caffrè coast], and Sasus is a place on the sea coast in that tract. This sea also washes the incense country [Adel and Adea], and the country where the gold mines are.

3. The king of Axiômis sends proper persons there by means of the governor of the Agows to traffick for gold. Many merchants join this caravan, and carry oxen, salt, and iron, which they exchange for gold. They leave these articles and retire,—when the natives come and leave as much gold as they chuse to offer. If this is thought sufficient, on their return they take the gold and leave the articles.

This is a very extraordinary passage, as it proves that the Abyssinians traded in that age, as they still do, not by sea, but inland through their southern provinces. And the exchange is similar to modern practice, both on the borders of Abyssinia, and other tribes of Africa. Montf.

There is the same traffick in Africa between the Western Moors (Mograbbins) and Nigritians. See Capper's Monsoons, Append. p. 190. from Shaw.

The same traffick of the Agows continues to this day. Bruce, iii. p. 455, oct. ed.

4. The winter [that is the rainy season] in Ethiopia is in our summer; the rains last for three months from Epiphi to Thoth, so as to fill all the rivers and form others, which empty themselves into the Nile. Part of these circumstances I have seen myself, and others I have heard from the merchants who trade in the country.

5. The great number of slaves procured by all the merchants who trade in this country; a trade noticed equally by the Periplûs near 500 years before Cosmas, and by Bruce 1200 years after his age. It is worthy of remark that Abyssinian slaves bear the first price in all the markets of the east, and the preference seems to have been the same in all ages. Montfaucon, tom. ii. p. 144. Nova Col. Patrum.

[40] Ἀλλ' ἄνδιχα πάντα δάσασθαι. Hom. x. l. 120. The Homerick custom of taking half and leaving half.

[41] Λέγει ἔθνη τὰ πέραν τῆ Νείλε, which Montfaucon reads in a parenthesis, as no part of the inscription, but as an observation by Cosmas.

among mountains difficult of access, and covered with snow; in all this region there is hail and frost, and snow [42] so deep that the troops sunk up to their knees. I passed the Nile to attack these nations, and subdued them.

I next marched against Lásinè and Zaa and Gábala, tribes which inhabit mountains abounding with warm springs; Atalmo also and Bega, these likewise I reduced, and all the nations in their neighbourhood.

After this I proceeded against the Tangaítæ [43], who lie towards the confines of Egypt; these I reduced, and compelled them to open a road of communication from this country into Egypt. The next tribes I subdued were Anninè and Metinè, who were seated upon mountains almost perpendicular; and Sesea, a tribe which had retired to a mountain absolutely inaccessible to an army; but I surrounded the whole mountain, and sat down before it, till I compelled them to surrender; I then selected the best of their young men, their women, their sons and daughters, and seized all their property for my own use.

But the fact is true, Samen is beyond the Tacazzè.

[42] Bruce utterly denies the existence of snow in Abyssinia; but it does not quite follow from this that snow was unknown in former ages. Horace says, Soracte stat nive candida, but the moderns observe this now never happens. Lobo asserts that snow falls in Samen on Sámenè, but in very small quantities, and never lies, p. 578. Fr. ed. Bruce calls Lobo a liar, but in many instances not without manifest injustice. He allows himself that Samen is a ridge eighty miles in extent; the highest part is the Jews' rock, where there was a kingdom of Jews till within these few years.

Compare this account of the frost with the destruction of the army of Facilidas by cold. Bruce, vol. iii. p. 439.

[43] If it were possible to identify this tribe with Dángola, it would be a great acquisition to geography. Dángola lies exactly in the proper place, as may be seen by Bruce's map, lat. 20°.

There is another Dánkala, or Dángola, on the Red Sea, lat. 12°. But see Bruce, iv. 326. oct. ed.

My next attempt was upon Rauso, an inland tribe in the frankincense country, a region without mountains or water; [from this tract I penetrated again to the coast, where] I found the Sôlatè, whom I subdued, and gave them in charge to guard the coast [from pirates].

All these nations, protected as they were by mountains almost impregnable, I subdued, and restored their territories to them upon conditions, and made them tributary; other tribes submitted also of their own accord, and paid tribute upon the same terms.

Besides the completion of this, I sent a fleet and land forces against the Arabites [44], and the city of Kinêdópolis [45] on the other side of the Red Sea; I reduced both to pay tribute, and gave them in charge to maintain the roads free from robbers, and the sea from pirates [46], subduing the whole coast from Leukè Komè to Sabêa. In the accomplishment of this business I [had no example to follow, either of the ancient kings of Egypt, or of my own family, but] was the first to conceive the design, and to carry it into execution.

[44] Arabians.

[45] See Ptolemy, p. 152. It is in Hejaz, lat. 22°. The name is significant; and whenever the Mammeluks are driven out of Egypt, they may retire to Arabia, and re-establish the city with its ancient title.

[46] The coast of Arabia, north of Yambo, has been notorious for pirates and robbers in all ages. Leukè Komè, or the White Village, we shall fix when we come to the coast of Arabia in the third book; it is at the entrance of the Elanitick Gulph; and the coast from this village to Sabêa or Yemen was in the route of all the trade from Egypt, both for native and Indian commodities, till the Romans were masters of Egypt. The Romans had a garrison in Leukè Komè, and a custom-house, where they levied 25 per cent. on all goods. See Periplûs Maris Eryth. p. 11. Huds. Leukè Komè seems, in the time of Cosmas, to have fallen into obscurity, which is the reason that he refers the name to Leukogen, on the opposite side of the gulph; that is, he copied a truth which he did not understand, and his ignorance is a proof of his veracity: he could not have forged it.

For my success in this undertaking I now return my thanks to Mars, who[47] is my father, and by whose assistance I reduced all the nations from [Bactria[48] on] the north, to the Incense coast on the south; and from Libya [on the west] to Ethiopia and Sasus[49] on the east. Some of these expeditions I entrusted to my officers; but in most of them I was present, and commanded in person.

Thus having reduced the whole world[50] to peace under my own authority, I came down to Adulè, and sacrificed to Jupiter, to Mars, and to Neptune, imploring his protection for all that navigate[51] [these seas]. Here also [at Adulè] I reunited

[47] Ὃς με καὶ ἐγέννησε, *the father who begot me.* It is a remarkable expression. He has already said he was the son of Ptolemy and Arsinoè, descended from Hercules and Dionúsus, and now Mars is his immediate father. Whatever vanity there may be in the sovereigns, or flattery in the subjects, there is still something analogous in these Macedonian genealogies. Alexander is not the son of Philip, but of Jupiter Ammon. His courtiers, and the family of his courtiers, follow the example of their monarch. They are gods and sons of gods, Θέοι βασιλῆες, Θέοι Σωτῆρες. The presumption is rather peculiar, for we may say to every one of them, Matris adulterio patrem petis.

[48] If the inscription ought to be confined to this expedition, the word inserted in the parathesis should be the *Tangaïtæ*, and not *Bactria*; but as he reduced *the whole world* to peace, I have made it general.

[49] From Abyssinia to the Bay of Zeyla. Sasus is manifestly a place on the coast of Adel, fully proved by Cosmas, ii. 139.

[50] The whole world is assumed by many conquerors for the world around them. Alexander and the Romans did not conquer the whole world, but used the same language.

[51] Ὑπὲρ τῶν πλωιζομένων.

It appears fully from this passage that Euérgetes engaged in this expedition on the plan of his father Philadelphus, for the extension and protection of commerce, and that he awed the whole coast on both sides the Red Sea, making them at least tributary, if not a part of his kingdom: but it no where appears that he passed the Straits of Bab-el-Mandeb. Though he visited the Mosyllitick marts, his approach to them was not by sea, but through the interior of Abyssinia and Adel, as appears by his march from Rauso to Sôlatè, which must be on the coast, from his giving it in charge to the natives to preserve the peace of the sea. The execution of these designs, with the opening a communication inland from Abyssinia to Suênè, marks the grandness and wisdom of his system, as clearly as if we had a history of his reign, and a detail of his expeditions. Of the latter there is not a trace remaining but this monument. It is still more extraordinary, that in less than seventy

all my forces, [which had been employed on both coasts of the Red Sea,] and sitting on this throne, in this place, I consecrated it to Mars, in the twenty-seventh year of my reign [52].

Abyssinian names of Places in the Inscription, many of which are identified by Cosmas himself. Consult Bruce's Map, vol. v. and Ludolfus, p. 14.

Gaza. Geez? but dubious, as it is one of the places first mentioned, and Geez is very far inland; Montfaucon. Pliny's Gaza near Mosyllon is noticed by Chishull; but these places in

years all the notice of this expedition should have sunk into silence, and that Agathárchides should say nothing of this plan, but so far as relates to the elephants procured at Ptolemáis Thêrôn. Can this be adduced as an argument against the reality of the marble? I think not; and I trust it to its internal evidence.

But if the authenticity of the marble be allowed, what light does it not throw on the boasted discoveries of the Ptolemies? It proves, that whatever might be the progress of Timósthenes down the coast of Africa in the reign of Philadelphus, no commerce was established upon it in the reign of his son. It proves that the Greeks of Egypt did not yet trade beyond the straits, or on the Mosyllitick coast, though they meditated the attempt. It proves that they did not yet go to Aden, but traded to Yemen within the straits; and that one object of this expedition was to clear the Arabian coast of pirates, from Leukè Komè to Sabêa; that is, from the top of the Gulph to the bottom. In the whole account not a word escapes that implies a trade with the marts of Arabia on the ocean beyond the straits, nor does it afford any reason to believe that the continent of Arabia was yet circumnavigated, or the discoveries of the Ptolemies brought in contact with those of Alexander.

This has been my inducement for introducing this marble to the knowledge of the reader, agreeably to my design of tracing the discoveries of the ancients step by step; and I conclude this account with remarking, that commerce rather fell short than proceeded in the following reigns; for it stopped at Sabêa on the Arabian side, as it does in this marble, and on the African side it did not go so low in the regn of Philomêtor as in that of Euérgetes.

[52] Chronologers assign 26 years to the reign of Euérgetes. But if a king commenced his reign in June, for instance, and died in October, it might be 26 years in a chronicle, and yet the 27th would have commenced. Chishull supposes this to be the fact. Dodwell supposes Euérgetes to have been crowned during his father's life time; and we add, that an error (if it be such) in numbers may be more readily imputed to a MS. than made to impeach the marble.

the commencement seem all between the coast and the Tacazzè, or its neighbourhood.

Agamè. A government in Tigrè; Montf. Ludolf. p. 17. Agam signifies Jessamine; Bruce.

Siguè. Bruce mentions Zaguè as a province, vol. ii. p. 534. else it might be thought Tigrè, from the places mentioned with it; or Siguè for Sirè; Σιγυὴ, Σιρυὴ.

Ava. The province between Adulè and Axuma. Nónnosus; Chishull. Axûma is in the province of Tigrè. Ava is still found as a district of Tigrè.

Tiamo or Tziamo. Tzama a government of Tigrè near Agamè; Montfaucon. It seems to be the kingdom of Damot. But there is a Tzama in Begemder; Ludolf. p. 14.

Gambêla, Gámbela. There is a Gaba noticed by Ludolf, but nothing to mark its relation to Gámbela.

Zingabênè [53]. The country of the Zangues, Zinguis, or Caffres.

Angabè, read Anga-bênè. The kingdom of Angot.

Tiama. Tiamaa, Vatican MS. Tigrè-mahon! a mere conjecture. But Mahon, Macuonen, signifies a governor or government; Ludolf. p. 20. It is idle to search for an equivalent, as it is possibly only a repetition of Tiamo.

[53] Zengibana. Hartman. Al Edrissi, p. 100.

Ath-agai, Agoa; Montf. Agows[54]; Bruce.

Kalaa. Nothing occurs but the mention of it with Semênè.

Semênè, Samen[55], Semen. Montf. The Tacazze is the boundary between Samen and Sirè; Bruce, iii. p. 252. The snow mentioned in the Inscription is denied by Bruce, but the mountains, eighty miles in length, are acknowledged by him; Ibid. And the Inscription mentions passing the Nile (Tacazzè) to Semêne.

Lasinè. Still so called; Cosmas; Lasta.

Zaa. Still so called; Cosmas. Xoa, Shoa, or Sewa; Ludolf.

Gabala. Still so called; Cosmas. There is a kingdom of Bali in Ludolph, p. 14. and a Gaba, p. 15. but nothing certain.

At-almo. Lamalmon[56] the great mountain. At, seems to be an article or prefix, as in Ath-agai.

Bega. Beja[57] and Begemder are still two provinces of Abyssinia.

[54] Cosmas uses the very word Agau, p. 139. Ἕνα δὲ παρ' ἕνα ἐνιαυτὸν ὁ Βασιλεὺς τῶν Αξιωμιτῶν διὰ τοῦ ἄρχοντος τῆς ΑΤΑΥ ἀποστελλει ἐκεῖ ανθρώπους ἰδίους ἕνεκεν πραγματείας χρυσίου.

The fact—the situation of the Agows for this traffick—the traffick itself—the employing the king's own servants, are all circumstances so natural and necessary that there cannot be a fallacy.

[55] Lamalmon, one of the highest mountains in Abyssinia, is a part of Samen. Bruce, iv. 377. oct. ed.

[56] The plain at the top is called Lama. Bruce, iv. 379. oct. ed. Now Lam is a mountain in Arabick; so that Lam-Almon is Mount Almon. This accounts for At-Almo.

[57] But Beja is also the country of the Trôg-

Tangaítæ. Vossius reads Pangaítæ, in order to prove that Panchaia the Frankincense country is not in Arabia but Africa; Vos. ad Pomp. Mel. lib. iii. c. 8. Chishull. But the Tangaítæ are a tribe between Abyssinia and Egypt, i. e. at Sennaar, Dongola, or Meroè, most probably at Sennaar or Dongola. Dongola is written Dangola and Dancala [58], not unlike Tanga. But whether Dangola is an ancient name I cannot discover. There is another Dongola on the coast.

Metinè, Anninè. Nothing occurs to ascertain these places. The Inscription passes from the northern frontier of Abyssinia to the southern with these names between, noticing only that they are mountainous.

Sésea. Barbaria, coast of Adel; Cosmas. Apparently on the mountains which divide Adel from Abyssinia. See Bruce, vol. iii. p. 250.

Rauso. Barbaria; Cosm. According to the Inscription itself it is inland from the frankincense coast of Barbaria (Adel), and Sôlatè is on the coast.

Sôlatè. Barbaria; Cosm. These three places correspond in number with the three on the Mosyllitick coast mentioned in the Periplûs. The modern maps have a Soel.

lodytes on the Red Sea, below the mountains; of which Aidab seems the principal place, and port of embarkation for Jidda. See Nub. Geog. Schultens in voce.

[58] Dancala is at leaſt as old as the Nub. Geog. p. 15. and the capital of Nubia. Schultens in voce ad vitam Saladini. Nubians called Nobata by Procopius, from Noubat. Arabick.

Nubia on the Nile 80 nights distant; from Dunkala to Suênè 40 nights.

Arabites. Homêrites[59]; Cosmas. But Cosmas is in an error. The Homêrites are on the ocean; these are the Arabian tribes on the coast of the Red Sea opposite to Suakem and Abyssinia, as appears by the Inscription.

Kinêdópolis. Homêrites; Cosmas. But Cosmas is mistaken. It lies on the coast of Arabia not far from Yambo, between Leukè Komè and Sabêa, agreeably to the Inscription itself. See Ptolemy, Asia; tab. vi.

Pirate Coast. Not noticed as such, but their piracies marked. Probably the Nabathêans or wild tribes above Yambo, always pirates, and subdued by the later Ptolemies and by the Romans. They are pirates at this day.

Leukè Komè. Leukogen, in the country of the Blemmyes; Cosmas. Another proof that Cosmas could not be a forger, for Leukè Komè is in Arabia, above Jidda, and he places it in Ethiopia. His ignorance is a proof of his veracity.

Sabêa. The Homêrites; Cosmas. But really Yemen, the Arabia Felix of the ancients, more properly so called afterwards when subjected to the Homêrites, and in the age of Cosmas assuming the name of the prevailing powers.

[59] See Gossellin Recherches, tom. ii. p. 212, et seqq. who supposes the Homêrites, in the reign of Justinian, to be masters of Arabia, as far as the Hejaz. Kinêdopolis is in Hejaz.

Sasus. At the extremity of Ethiopia where gold called Tancharas is obtained. It lies upon the same ocean as Barbaria (Adel), where frankincense is procured; Cosmas. By Ethiopia he means Abyssinia, and Sasus must be near Zeyla.

Adûlè. The port of Abyssinia in the Bay of Masuah.

PART I.

DISSERTATION II.

ON

ΕΙΤΕΝΗΔΙΟΜΜΕΝΟΥΘΕΣΙΑΣ.

THE readings of this extraordinary polysyllable are as numerous almost as the editions, and the authors who have had occasion to cite it. The corruption is evident to all, but no two agree in the correction.

The whole passage stands thus:

Μεθ' ὃν, ποταμοὶ πλέιονες, καὶ ἄλλοι συνεχεῖς ὅρμοι, διηρημένοι κατὰ ςαθμὲς καὶ δρόμους ἡμερησίους πλέιους, τὲς πάντας ἑπτὰ, μέχρι Πυραλάων[60] νήσων, ΚΑΙΝΗΣ ΛΕΓΟΜΕΝΗΣ ΔΙΩΡΥΧΟΣ, ἀφ' ἧς μικρὸν ἐπάνω ΤΟΥ ΛΙΒΟΣ, μετὰ δύο δρόμες νυχθημέρους, παρ' ΑΥΤΗΝ ΤΗΝ ΔΥΣΙΝ ΕΙΤΕΝΗΔΙΟΜΜΕΝΟΥΘΕΣΙΑΣ ἀπαντᾷ νῆσος.

Salmasius reads παρ' αὐτὸ τὸ Πράσον ἄκρον ἐις ἕω Μενεθιὰς ἀπαντᾷ νῆσος. Blancard follows Salmasius, but in this correction, τὸ Πράσον ἄκρον is assumed without a shadow of resemblance, and is as wrong in point of geography as criticism. The Menûthias of the Periplûs has no reference to Prasum whatever; and the mistake of Salmasius arises from supposing that the Menûthias of Ptolemy and the Periplûs are the same, which they certainly are not.

Others read,

Εἴτε Μενεθιὰς ἀπαντᾷ νῆσος.

Εἴτε νὴ δι' ἕω Μενεθιὰς ἀπαντᾷ νῆσος.

[60] The Basil edition reads ἐπ' ἄνω Πυριλάων.

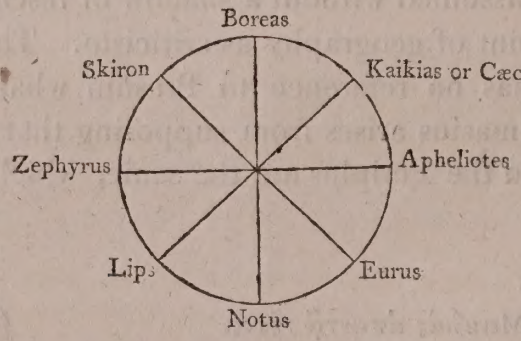
Henry Jacobs, in Hudson's Minor Geographers, vol. iii. p. 68. reads,

παρ' αὐτὴν τὴν δύσιν εἰς τι νότιον Μενεθιὰς ἀπαντᾷ νῆσος.

Henry Jacobs adds also, that Prasum is not Mosambique but the Cape of Good Hope. He can find no authority for this, but the estimate of Marínus, and Marínus himself corrects his excess, and reduces his latitude from 34° south to 23° 30′ 0″. See Ptol. lib. i. c. 7.

Impressed with the appearance of these difficulties, I venture on the following discussion with no common uncertainty; and little practised as I am in the science of correction, I decline the grammatical and critical part of the inquiry, and wish to confine my reflections almost wholly to what is purely local and geographical.

I. First then it is to be observed that our author has certainly not more than eight[61] divisions of the heavens, or, as we should say in modern language, eight points of the compass, the same number as is marked upon the eight fronts of the Temple of the Winds at Athens, under the following appellations[62]:



[61] It is not intended to say that the whole eight occur in the Periplûs, but that it has not more than eight. It uses Aparctias for the north, p. 17. and Dusis for the west.

[62] See Aristotle Meteorol. lib. ii. c. 6. and de Mundo, c. 4.

In the application of these, or the terms equivalent to these, the Periplûs is generally accurate, except in the instance of laying down the coast from Cape Elephas to Arômata, where, if our charts are accurate, as they are, generally at least, it is impossible to apply the points of the Periplûs to the actual state of the coast.

II. Secondly, let us examine the points of the compass specified by the author in this passage, and his manner of expressing them; these are ἐπάνω τοῦ Λιβός, or ἐπ' ἄνω[63], and παρ' αὐτὴν τὴν δύσιν, answering to the south-west and west in the foregoing figure; and here it is observed, that ἐπάνω or ἐπ' ἄνω τοῦ Λιβός, is not known as a Greek idiom, although τὰ ἐπάνω is used by the author for the upper part of the coast, p. 12. But let us suppose it to be a nautical phrase, how is it to be interpreted? Africum versus à superiori parte? Altius quam Africus? *Above* the south west? If this has a meaning in Greek, what is to be understood by *above?* Is it more to the south or more to the west? that is, is it south west by west, or south west by south? If we prefer the former, it corresponds with the bearing of Zanguebar from Pemba, and παρ' αὐτὴν τὴν δύσιν; if we adopt the latter, it agrees best with the bearing of Zanguebar from Mombaça: and this seems the more proper, as the course is [ἀφ' ἧς] from Mombaça. The difficulty which occurs here, induces Dr. Charles Burney, of Greenwich, to discard the expression, and to read ἐπ' ἀνατολὴν, for ἐπάνω τοῦ Λιβός.

In the next place, how are we to understand παρ' αὐτὴν τὴν δύσιν? Παρὰ, according to the lexicons, has a sense of motion to a place. In which form it might be rendered towards the

[63] Ἐπάνω with a genitive is in common use, but whether it can be used with a wind, or in what sense, is dubious. Ἐπάνω τοῦ στερεώματος, above the firmament, is a known idiom.

west, as in p. 9. almost immediately preceding the passage before us, παρ' αὐτὸν ἤδη τὸν Λίβα seems to express the direction[64] of the coast lying south west and north east as we ſhould express it in English[65], or the course of a vessel along the coast in a south west direction.

III. Thirdly, we must inquire how these expressions can be applied in any of their senses to the bearings of the islands and the coast; and here I *assume* Menûthesias or Menûthias for one of the Zanguebar islands, from the distance specified, which is three hundred stadia from the coast, equal to thirty miles, and corresponding with the distance of no other islands in this part of the voyage. Now I have before assumed Mombaça for the termination of the Puralaan islands, that is, for the Καινὴ διώρυξ, the new canal[66]. The vessel is plainly setting out from this point, [καὶ τῆς καινῆς λεγομένης διώρυχος ΑΦ' ΗΣ μικρὸν ἐπάνω τῦ Λιβὸς,] that is, *from Mombaça*, and going down to an island thirty miles distant from the coast. The coast itself runs south west, but if she is to stand off the coast for the island, she runs not south west, but more towards the south than south west. Now this is actually the course a vessel must hold to run from Mombaça to Zanguebar. It would be a little to the south of south west. If therefore ἐπάνω τῦ Λιβὸς can be made a Greek idiom, or a Greek nautical phrase, this I conclude is the only interpretation it could bear. It must be noticed likewise, that this expression must be applied to the course of the vessel from Mombaça, as

[64] The primitive sense of παρὰ, seems to be juxtaposition, or side by side, as παρήορος, παραπλῆγας. See Odys. E. 418. 440. ἠιόνας παραπλῆγας, where the waves do not break directly against the coast, but run along the side of it.

[65] So likewise παρὰ τὸν βορέαν, p. 23. towards the north.

[66] The proofs will be found p. 153. et seqq. supra.

παρ' αὐτὴν τὴν δύσιν must apply to the position of the islands; for it is joined with μετὰ δύο δρόμους νυχθημέρους, as παρ' αὐτὴν τὴν δύσιν, is joined with ἐιτενηδιωμμενεθεσίας ἀπαντᾷ νῆσος.

I had, in the former edition, expressed a predilection in favour of Monfia; but the inspection of Mr. Arrowsmith's[67] map of Africa has convinced me, that this assumption is not tenable; for he lays down Pemba far more easterly than Zanguebar, and Zanguebar itself as much more prominent and conspicuous than either Pemba or Monfia: and that Menoothias was no ordinary island, appears from the description of it in the Periplûs. All these islands lie east from the coast, which is sufficient to justify Dr. Charles Burney's reading of ἐπ' ἀνατολὴν for ἐπάνω[68] τῦ Λίβος. But we are now setting sail from Mombaça, and from Mombaça Mr. Arrowsmith's Zanguebar lies almost due south: let us then consider that the Periplûs, only ten lines previous, has been conducting us along this coast [παρ' αὐτὸν ἤδη τὸν Λίβα] in a course directly towards the south west; but when he comes to Mombaça, he means to say that the course was no longer south west to Menoothias or Zanguebar, but that it was more to the south than south west. This is a geographical truth; but whether grammatical accuracy, or the nature of the language, will allow us to render ἐπάνω τῦ Λίβος by a point to the south of south west, that is, in nautical language, south west and by south, I cannot ascertain: I can only say, that the course from Mombaça to Zanguebar is more south than south west, and therefore I prefer this interpretation.

[67] The map of the coast of Africa, inserted in the present edition, is corrected from Mr. Arrowsmith's, by his permission.

[68] I have met with ἐπάνω once only in any other part of the Periplûs: τὰ δὲ ἐπάνω, p. 12. where it signifies the upper part of the coast; and perhaps the original reading ἐπ' ἄνω is better than ἐπάνω.

In the next place, our attention is drawn to παρ᾽ αὐτὴν τὴν δύσιν, that is, Menoothias lies towards the west:—but towards the west of what? Certainly not west of the coast opposite, for from that it lies directly east; but it lies more westerly than the Puralaan islands, Sio, Ampaça, Patè, and Lamo, which are mentioned in the preceding clause; and if the bearing is so far right, we may try how far the text may be made to correspond. ἄλλοι συνεχεῖς ὅρμοι . . . . . τὲς πάντας ἑπτὰ, μέχρι Πυραλάων νήσων [69] [καὶ τῆς] καινῆς λεγομένης διώρυχος· ἀφ ἧς μικρὸν ἐπάνω τὲ Λίβος . . . . . παρ᾽ αὐτὴν τὴν δύσιν Ειτενηδιωμμενεθεσίας ἀπαντᾷ νῆσος.

"Then follow other roads or anchorages, seven in all, to the "Puraláan islands, and the place called the New Canal, *from* "*which* framing your course nearer south than south west, the "island Eitenediommenuthesias lies before you towards the "west."

In this we have the words with little or no meaning: the error lies concealed in the strange polysyllable. To correct this with the least force upon the text, I propose,

Παρ᾽ [70] αὐτὴν τὴν δύσιν ἤδη νησίων, Μενεθεσίας ἀπαντᾷ νῆσος.

ἤδη is often applied in this way, as παρ᾽ αὐτὸν ἤδη τὸν Λίβα. ἤδη δὲ ἐν ἀρχῇ, p. 14. The construction would then stand thus: "Towards the west of the islands occurs the island Menoo-"thesias." ετὶ would approach nearer to ἐιτε, but I have no authority for the phrase; and ἑπτὰ would not recede far from the letters, if there were any foundation for assuming seven islands for the Puraláan islands, at the seven anchorages: but

[69] It is written Πυριλάων in the edition of Blancard, and I prefer Πυράλιων.

[70] Παρὰ must evidently be rendered the same way before αὐτὴν τὴν δώσιν, as before αυτὸν τὸν Λίβα; *towards* the west, *towards* the south west.

of this there is no confirmation, either in the Periplûs, or the geography of the coast. If, however, Menoothesias lies more westerly than the islands, what islands are they? Zanguebar certainly lies more westerly than the Puraláan islands, and more westerly than Pemba. I cannot, even by Arrowsmith's chart, make it more westerly than Monfia, otherwise I should say, that it is the most western of the Zanguebar islands; and I should have little scruple in reading παρ' αὐτὴν τὴν δύσιν ἤδη νησίων Μενουθεσίων, Μενουθίας ἁπαντᾷ νῆσος; for in such repetitions one of the component parts is often dropped or absorbed. In this form it would express, "that Menoothias was the most westerly "of the Menoothesian islands;" that is, that Zanguebar is more westerly than Pemba or Monfia.

I will freely acknowledge that I have little confidence in this correction; but in a desperate case, the mind must rest upon something; and I am persuaded that in νηδιωμ[71] there are the rudiments of νησιων, whenever, or by whatever means, the genuine reading shall be elicited.

After this statement of my own efforts, I most readily consign the question to abler hands, and present the reader with the disquisition of Dr. Charles Burney, who, from his better acquaintance with manuscripts, is more able to correct their imperfections. His correction of καινῆς διώρυχος, by the addition of καὶ τῆς, I consider as indubitable; his introduction of ἐπ' ἀνατολὴν, for ἐπ' ἄνω τὲ Λίβος, is highly probable, from the bearings of the islands with the coast; and the remainder is more

[71] It requires nothing more than to turn δ into σ; for the final ν is changed regularly into μ before another μ, as in ἐμμενειν; or if it was originally a separate word, the ancient form of ν is μ, easily mistaken for μ.

likely to satisfy the reader than any suggestions of mine. I differ from him only on account of my desire to adhere to the letter of the text; but I know that much greater licence than he has taken is justifiable, when a text is so corrupt as that which is the subject of the present discussion.

The expressions which apply to the points of the compass, as they occur in the Periplûs, are the following: *κατὰ τὸν Νότον.—κατὰ τὴν δεξίαν.—εἰς Λίβα.—εἰς τὸν Νότον ἤδη.—ἤδη ἐπ᾽ ἀνατολὴν.—παρ᾽ αὐτὸν ἤδη τὸν Λίβα.—τὰ δὲ ἐπάνω.—παρ᾽ αὐτὸν κείμενα τὸν Βορέαν.—παρὰ τὸν Βορέαν.—μετὰ τὴν ανατολὴν.—εἰς αὐτὴν ἀνατολὴν.*

Observations by Dr. Charles Burney.

Περίπλους τῆς Ἐρυθρᾶς θαλάσσης. Edit. Princ. Basileæ. *Quarto.* 1533. p. 20. l. 30.

1. Ὅρμοι, διηρημένοι καθὰ σταθμοὺς καὶ δρόμους ἡμερησίους πλείους,
2. τοὺς πάντας ἑπτὰ, μέχρι πυριλάων νήσων, καινῆς λεγομένης διώρυχος.
3. ἀφ᾽ ἧς μικρὸν ἐπ᾽ ἄνω τῇ λιβὸς, μετὰ δύο δρόμους νυχθημέρους, παρ᾽
4. αὐτὴν τὴν δύσιν εἰλενηδιωμμενουθεσίας ἀπαντᾷ νῆσος ἀπὸ σταδίων τῆς
5. γῆς ὡσεὶ τριακοσίων, ταπεινὴ καὶ καλάδενδρος.

In editione Blancardi, Amstel. 1683, in octavo, p. 151. l. 4—14.

L. 2. Πυριλάων. L. 3. Ἐπάνω.

L. 3. 4. Νυχθημέρους, παρ᾽ αὐτὸ τὸ Πράσον ἄκρον εἰς ἕω Μενουθιὰς ἀπαντᾷ νησος, σταδίων ἀπὸ τ.

In editione Hudsoni, Geographiæ Vet. Scriptores Græci Minor. vol. i. p. 9. l. 26.—p. 10. l. 2 [72].

L. 2. Πυριλάων. L. 3. Ἐπάνω.

L. 4. 5. Σιαδίων ἀπὸ τῆς.

L. 2. Μέχρι Πυριλάων νήσων, καινῆς λεγομένης διώρυχος.

It is surprising, that all the editors should have passed over this passage, which is wholly unintelligible; nor will the supposition of τῆς νήσου being understood, between μέχρι Πυριλάων, remove the difficulty, of which you appear to have been the first observer. Καινὴ διώρυξ, as you remark, would, indeed, be an odd name for an island.

The article is improperly omitted, in the latter part of the sentence. Hence the passage may be thus read:

Μέχρι Πυριλάων νήσων, καὶ τῆς καινῆς λεγομένης διώρυχος.

The word καινῆς has absorbed καὶ τῆς, which might easily happen, from the similarity of sound, and accent on the final ῆς.

L. 3. ἀφ' ἧς μικρὸν ἐπάνω τῆ Λιβὸς, μετὰ δύο δρόμους νυχθημέρους, παρ' αὐτὴν τὴν δύσιν——

Ἐπάνω τοῦ Λιβὸς, on account of the intervention of μετὰ δ. δ. νυχθημέρους, cannot possibly be connected with παρ' αὐτὴν τὴν δύσιν, nor would these terms, if they could be united, explain the

[72] The references in these remarks are made to Hudson's edition.

situation of the island Menûthias. Instead of ἐπάνω τοῦ λιβὸς, read, ἐπ' ἀναλολὴν, which precisely expresses the position of Menûthias, with respect to the new canal, or ἡ καινὴ διώρυξ, on the coast of Africa.

To remove all doubt about the truth of the correction, the words of Ptolemy may be adduced :

Ὦ (ἀκρωτηρίῳ, τῷ Πράσῳ) παράκειται ἀπὸ θερινῶν ἀναλολῶν νῆσος, ἣ ὄνομα Μενουθίας, p. 131.

It may also be mentioned, that Λὶψ is the name of a wind ; and not of the coast, over which *Africus* blows. What possible explanation then can be given to ἐπάνω τοῦ λιβος ?—The terms θεριναὶ τροπαὶ καὶ χειμεριναὶ, in Aulus Gellius, ii. xxiii. p. 210. edit. Conrad. may illustrate Ptolemy's ἀπὸ θερινῶν ἀναλολῶν.

L. 4. Παρ' αὐλὴν τὴν δύσιν εἰλενηδιωμμενουθεσίας ἀπαντᾷ νῆσος ἀπὸ σταδίων τῆς γῆς ὡσεὶ τριακοσίων.

In the latter part of this portentous word, εἰλενηδιωμμενεθεσίας, Salmasius acutely discovered the name of the island Menûthias ; but it is impossible to assent to his change of παρ' αὐλὴν τὴν δύσιν εἰλενηδιωμ, into παρ' αὐλὸ τὸ Πράσον ἄκρον εἰς ἕω. It does not appear, that the author of this Periplûs was acquainted with the Promontory of Prasum ; and it is certain, that he never uses εἰς ἕω, but ἐπὶ, εἰς, or πρὸς, ἀναλολὴν, for *Orientem versus*. The new reading also does not sufficiently resemble the old, for it to have just claims to admission.

Henricus Jacobius is still more unfortunate in his conjecture—δῦσιν ἔις τι νότιον Μενουθιὰς α. νῆσος. This author, indeed, has, p. 27.

l. 26. καὶ τὰ νόμια τῆς Ἰνδικῆς——, but this will not vindicate εἴς τι νόμιον, nor will καλά τι δίκαιον ἀρχαῖον, *antiquo quodam jure*, in p. 10. l. 23. nor in p. 20. l. 3. ἡμέρας ἐ πολύ τι βλέπουσες, if the passage be sound, defend this passage of τι with νόμιον. This author, indeed, has, p. 7. l. 34. εἰς τὸν νόμον, and again, p. 9. l. 14. so p. 11. l. 16. καλὰ τὸν νόμον, and p. 12. l. 32. παρ' αὐτὸν νόμον,—but τι νόμιον is unexampled in this Periplûs.

As [73] to ἓν τῶν νησίων Μενουθεσίων, or Μενθεσίας ἀ. νῆτος, it is harsh to admit ἓν, and not agreeable to the usage of the Periplûs.—Ἐστί νησίον Μενουθεσίας, would occasion the omission of two words, ἀπανλᾷ νῆτος, as you observe; which would greatly invalidate the conjecture, even if the following ταπεινὴ did not render it inadmissible.—It is right to state, that the word νησίον occurs in this Periplûs, p. 22. l. 10. πρόκειται—αὐτῇ νησίον μικρόν.

Salmasius appears, as has been mentioned, to have rightly traced the name Μενουθιὰς, in the latter part of this strange word. In the former, εἰλενηδιωμ, seem to be discoverable the disjoined traces of διαλείνουσα ἡ. The letters are strangely jumbled; but it is to be recollected, that in the very next line, where Hudson gives σλαδίων ἀπὸ τῆς, the editio Princeps has ἀπὸ σλαδίων τῆς γ.

Let the author himself defend this restitution. First, for διατείνουσα.

P. 5. l. 16. ἐπ' ἀναλολὴν—διαλείνει.

P. 6. l. 17. ἀκρωτηρίῳ τῷ ἐξ αναλολῆς ἀναλέινουσι, &c. &c.

[73] This remark was in answer to readings which I had proposed.

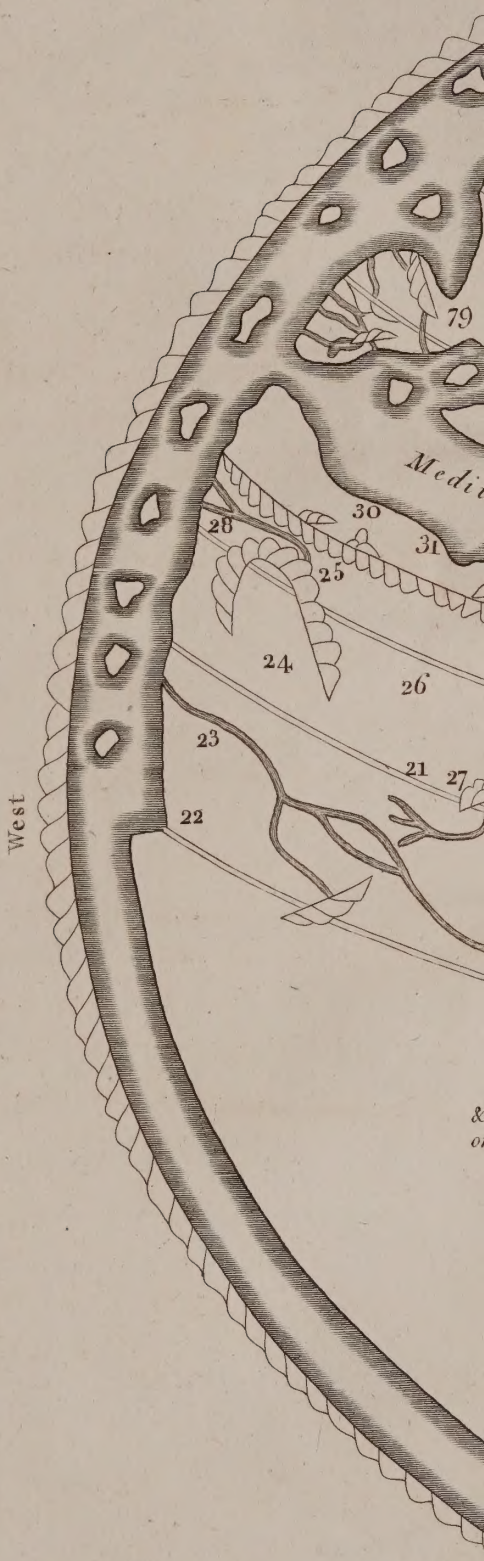
To conclude, the whole passage should probably be read thus:

Ὅρμοι, διηρημένοι καλὰ σλαθμοὺς καὶ δρόμους ἡμερησίους πλείους, τοὺς πάνλας ἑπλὰ, μέχρι Πυριλάων νήσων, καὶ τῆς καινῆς λεγομένης διώρυχος· ἀφ' ἧς μικρὸν ἐπ' ἀναλολὴν, μελὰ δύο δρόμους νυχθημέρους, παρ' αὐλὴν τὴν δύσιν διαλέινουσα, ἡ Μενουθίας ἀπανλᾶ νῆσος, σλαδίων ἀπὸ τῆς γῆς ὡσεὶ τριακοσίων, ταπεινὴ καὶ καλάδενδρος.

AFTER considering all the difficulties which occur in regard to this passage, and the obscurity respecting the choice which is to be made out of the three Zanguebar islands, if it is ascertained that Menoothias must be one of them, the termination of the voyage at Quiloa is established. Pemba, it is true, is farther from the coast than Zanguebar or Monfia; but Captain Bissell's account of this island, stating that it is *low* and *woody*, in the very words of the Periplûs, suggests a preference as due to this, rather than to either of the other two. A better knowledge of all the three, if it should be hereafter obtained, may determine our choice: at present it is sufficient to observe, that the distance from the coast proves that it must be one of the Zanguebar islands; and if so, the coast itself furnishes no proper site for a mart or settlement till we arrive at Quiloa.

MAP *of the* WOR

The Author lived in the 12.th



MAP *of the* WORLD *taken from an* Arabian Manuscript *of* Al Edrisi *in the* Bodleian Library.

The Author lived in the 12.th Century the Manuscript is of the 15.th North *N.B. The Arabian Geographers represent the World as an Egg floating in a Bason of Water.*

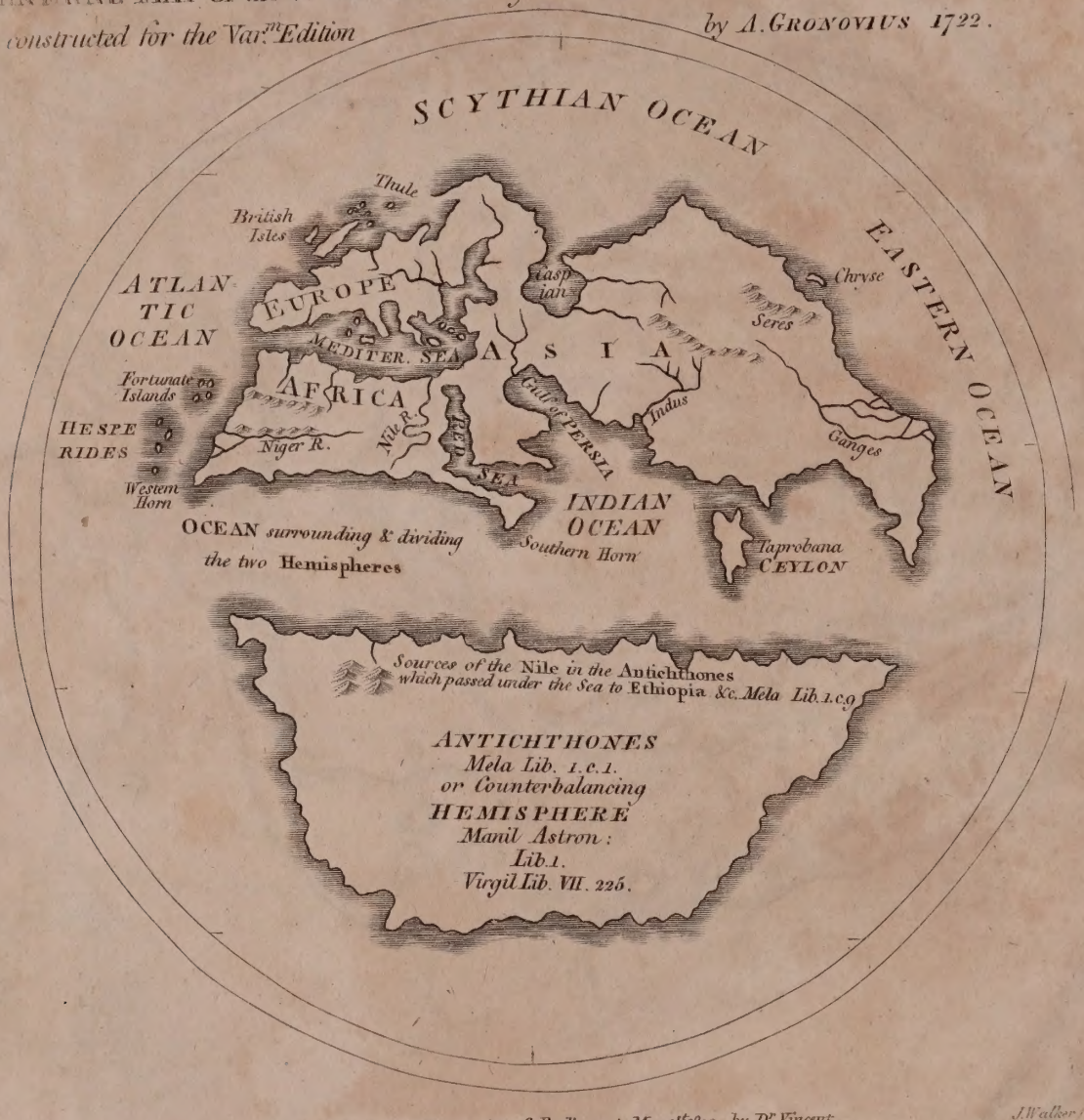
Published according to Act of Parliament May 1.st 1800 by D.r Vincent.

J. Walker

to front Dissertation III Periplus part I Ancient Maps

GENERAL MAP of the WORLD *according to* POMPONIUS MELA *by* P. BERTIUS,

constructed for the Var.m Edition *by* A. GRONOVIUS 1722.



Published according to Act of Parliament May. 1st 1800. by Dr. Vincent.

J. Walker sculp.

PART I.

DISSERTATION III.

ON THE

ANCIENT MAPS *of the* WORLD.

THREE plates are here presented to the observation of the reader, two of which are original, from Cosmas Indicopleustes, and Al Edrissi, and the third is drawn up by Bertius, for the Variorum edition of Pomponius Mela, by Abraham Gronovius, 1722.

I. Pomponius Mela, as earliest in point of time, requires our consideration first, and in this map it will be seen with what propriety the ancients called the extent of the earth, from west to east, length, and the extent, from north to south, breadth. Artemidôrus[1] (104, A.C.) is said by Pliny to have first employed the terms of length and breadth, or longitude and latitude. The dividing of these into degrees, and degrees into their parts, was not effected fully before the time of Marínus, nor brought into practice before Ptolemy. But our present inquiry is confined to the appearance of the earth, and here the great object which strikes our attention is the vast southern continent or hemisphere, placed as it were[2] in counterbalance to the northern. The form in which it here appears

[1] See Agathêmerus, in Hudson's Geog. Min. cap. iv. Strabo, lib. i. p. 64. Ptol. lib. i. Aristotle employs length and breadth.

[2] Pom. Mela, lib. i. c. i. See the map itself in Gronovius.

seems as if the ancients had cut off[3] the great triangle of Africa to the south, and swelled it into another world in contradistinction to that which they knew and inhabited themselves. It is this supposition which gives rise to the expressions of Manilius.

> Altera pars orbis sub aquis jacet invia nobis,
> Ignotæque hominum gentes, nec transita regna
> Commune ex uno lumen ducentia sole,
> Diversasque umbras, *lævâque* cadentia signa,
> Et dextros ortus cælo spectantia verso. ASTRON. lib. i.

And the same sentiment in Virgil:

> Audiit et si quem tellus extrema refuso
> Submovet oceano, et si quem extenta plagarum
> Quatuor in medio dirimit plaga solis iniqui. ÆN. lib. vii. 226.

It is this supposition also which gave rise to the belief of circumnavigations which never took place; for M. Gossellin proves that the voyage of Eudoxus cuts through the centre of the great continent of Africa, and Hanno is carried to the Red Sea without passing the equator. This it is which extends the title of the Atlantick Ocean, to the east of Africa as well as to the west, and makes Juba commence the Atlantick from Mosyllon. All this is natural, if the continent of Africa be curtailed at the twelfth degree of northern latitude, and the voyage shortened by about eighty degrees in extent.

[3] Abulfeda had the same notion. See Rennell, Geog. of Herod. 689. "The sea passes "at the back of the mountains that give rise "to the Nile." These are the mountains of Al Komri, or the Moon. The sea then goes southward at the back of the Zengitæ, or Zanguebar, and then turns north east.

The ancients had another method of shortening the unknown parts of the world, which was, by lengthening the known parts: for instance, Ptolemy has 180 degrees from the Fortunate Islands to Cattígara,—which is in reality little more than 90; consequently from Gades west to India, or rather Cattígara, it was only a voyage of 180 degrees, instead of 270. Seneca thought this might be sailed in a few days, with a fair wind; and Aristotle was of the same opinion. See Roger Bacon, Op. Maj. p. 183. And Martin Behaim in the Norimberg Map. So also the Map in Grynæus, Novus Orbis, where Cuba lies in the place of North America, and Japan 15 degrees to the west.

But it may be proper to call the attention of the reader to the view of this sort of a world, as applicable to the Phênician expedition of Heródotus. A vessel sailing along the southern coast of such an Africa as this, has in theory the sun upon the right-hand of the navigators for three parts of the voyage, and this constitutes the circumstance as the grand occurrence of the expedition. But were the same vessel to run into latitude 34° south, the real latitude of the Cape, the space during which the sun would be on the right-hand, is a point in comparison of the other course, and the phênómenon would doubtless have been pointed out in other terms, as the quarter of the heavens, or the place of the luminary.

There is another particular in this map also well worthy of attention, which is the source of the Nile placed in the southern[4] hemisphere, and compelled to run under the ocean,

[4] See Diodorus, lib. i. p. 45. ἀπὸ τῦ περιῤῥέοντος τὴν οἰκεμένην Ωκεανῦ. Vide insuper, p. 49. ἐκ τῆς ἐναντίας ζώνης, &c. Diodor. ibid. Ηρόδοτος.....φησὶν ἐκ τινὸς λίμ-

like another Alphêus, and rise again in Ethiopia; now this fable has its origin from one of two causes; for it was either known that this hypothesis cut Africa too short to afford a place for the sources of the Nile, which were carried to an indefinite distance south [5] by the early geographers [6], and therefore a situation south must be found beyond the ocean in the other hemisphere, or else it arose from the report of the Nile in the early part of its course, running through a sea with which it never mixes. This is a circumstance which is now known to take place on its passing through the Lake Tzana or Dembea, where Bruce assures us that the course of the stream across the lake is distinctly visible from the high land in the neighbourhood.

Nothing farther worthy of observation occurs in this map, but that it cuts short the peninsula of India as well as Africa, and places Taprôbana or Ceylon as it appears in the tables of Ptolemy. It unites also the Caspian Sea with the ocean, and gives a circumambient ocean on the north, as navigable as on the south, part of which the Argonauts did navigate! and all but the whole was supposed to have been navigated, by Pliny. It was this supposition which brought the Sêres on the north,

νης λαμβάνοντα τὴν ἀρχὴν τὸν Νεῖλον φέρεσθαι διὰ χώρας Αἰθιοπικῆς ἀμυθήτου. Hæc negabit, Herodotus, ii. 32. Wessel.

In p. 50. he names Agatharchides as mentioning the rains in Ethiopia: he therefore is the first author who knew the true cause.

Benj. of Tudela asserts it also in 1173. Bergeron, p. 59.

[5] Al Edrissi places the fountain of the Nile in 16° south, p. 16. from ten springs; five into one lake, and five into another: from each of these lakes three streams into a third lake near Tumi. This lake is at the Equinoctial, and from this, one stream goes to the west, and another into Egypt. On the western stream lie all the kingdoms of the Caffres. He notices the Black horse, called Albanim, which make irruption into Nuba. Are these representatives of the Funge at Sennaar?

[6] To 12° or 13° south by Ptolemy.

almost as nearly in contact with the Caspian [7] Sea, as Mosyllon was with the Fortunate Isles on the south! how many obstacles has real navigation discovered, which fictitious navigators surmounted without a difficulty?

II. The Map of Cosmas [8]

Is so poor a composition, and so wholly the conception of his own mind, that it would be utterly unworthy of notice were it not the original production of the monk himself. The veracity of Cosmas, both in regard to what he saw and heard, is respectable, as has been shewn in his account of Ceylon; but his hypothesis, it is evident, makes the world a parallelogram with a circumambient ocean, and the rivers of Paradise flowing on the outside; while the vicissitude of day and night is not caused by the revolution of the earth or the heavens, but by the sun's disk being obscured by a mountain on the north [9]. He also has a Caspian Sea that joins the ocean, and a Nile that runs under the ocean, springing from the Gihon of Paradise in another world. The ignorance of an individual is not astonishing in any age, but the ignorance of Cosmas is extraordinary in the sixth century, when we must suppose the writings of Ptolemy would have been known to a monk of Egypt, and when that monk resided some years within the tropick, and must have seen the sun on the north as well as on the south.

[7] See the concluding pages of the Periplûs.

[8] See plate in the account of the Adulitick Inscription.

[9] This he had from Indian astronomy. Bayer Dict. Temp. p. 189.

III. The Map of Al-Edrissi.

I owe the knowledge of this map to the kindness of Dr. White the Arabick Professor at Oxford; there are two Arabick[10] copies of Al-Edrissi in the Bodleian, and that from which the opposite map is taken is beautiful and adorned with maps for almost every chapter. This before us is a general one, curious because it is evidently founded upon the error of Ptolemy, which carries the coast of Africa round to the east, and forms a southern continent totally excluding the circumnavigation into the Atlantick Ocean. The learned Hartman supposes that Al-Edrissi's account goes as low as 26° 20′ 0″ south, to the river Spirito Santo. It may be so, for Daguta is his last city, which is but three days sail from Gasta, and Gasta is but one from Komr, the Island of the Moon, or Madagascar. (See Hartman's Al-Edrissi, p. 113, et seqq.) This point and Wak Wak or Ouak Ouak seem to baffle explanation, and Hartman confesses he can find no room for the latter. But with all its fable, it is still the kingdom of the Zinguis, (Hartm. p. 106.) and if so, it must be Benomotapa, which lies inland, and which Al-Edrissi has ignorantly brought to the coast. It is, in short, the termination of knowledge, which, with Arabians as well as Greeks, is always fabulous, and is by some of their writers placed in the Mare tenebrosum, or circumambient ocean[11], (p. 107. Hartman Bakai another Arabian.)

[10] One of Graves's, No. 3837. Another of Pocock's, No. 375. Hejira, 906, A. D. 1500. It is from the last that this map is taken.

[11] The reason of this is evident by consulting the map, where it appears that Wak Wak and China are in the same degree of longitude; but the Mare tenebrosum is the circumambient ocean, as well on the west as the east, which the Nub. Geog. states, p. 4. for the Mediterranean or sea of Damascus issues at Calpè into the Mare tenebrosum.

That the Komr of Al-Edrissi, the Island of the Moon, is Madagascar I have no doubt; because in the maps which detail the coast, I found the continuation of this island opposite to the continent through several chapters, in all which parcels, Dr. White assured me the name of Komr was regularly repeated; and though Hartman is by this made to doubt concerning Saranda, Serendib, or Ceylon, (p. 116, et seqq.) there is no ground for hesitation; the error originates with Ptolemy, and the necessity of carrying round the lower part of Africa to the east, compels those who follow his hypothesis to throw up Madagascar nearly opposite to Ceylon, to bring the Indus into the Gulph of Persia, and the Ganges over the head of Ceylon. Whether all these inconsistencies would have appeared as gross in detail as in the general map, I cannot say; my want of Oriental learning, I regretted, did not permit me to examine the MS. myself, in a satisfactory manner, and I had intruded too far on the assistance of the professor. To judge by Madagascar and the coast of Africa, I still think the search would repay any Orientalist who would pursue it; and when Sir William Ousely has finished Ebn Haukal, what better scene for the employment of his superior talents than Al-Edrissi, whom we all quote from an imperfect translation, and whom we should know how to appreciate, if the dross were once separated from his ore.

The course of the Nile is still more hyperbolical in this author than in Ptolemy whom he copies, but he has an inland Caspian as well as that author, and of a better form. To compensate this, however, he has his magnetick[12] rocks which draw the

[12] This fable originates with Ptolemy, whom we find it; only he places it in the extremity of the world east, and Al-Edrissi at p. 178. or at least he is the first author in

iron out of vessels, an eastern fable as regularly at the limit of Oriental knowledge, as the Anthropóphagi formed the boundary of the Greeks; while his termination of the coast of Africa at Daguta, wherever that may be fixed, proves that little more had been done by the Arabs of the twelfth century, towards prosecuting the discovery of the coast to the south, than by those whom the Greeks found there, or by the Greeks themselves.

The Arabick names of this map, now supplied by cyphers, have been translated by Captain Francklin of the Bengal Establishment, whose merit as an Oriental scholar is sufficiently established by his History of the Revolutions at Dehli, and who has repaid the instruction of his youth, with the cordiality of a friend.

Numbers and Names of the Chart from the Arabick, by Captain Francklin.

No. 1. Mountains of the Moon, and sources of the Nile.
2. Berbara (kingdom of Adel).
3. Al-Zung (Zanguebar).
4. Sefala (Sofala).
5. Al-Wak Wak.
6. Serendeeb (Ceylon).
No. 7. Al-Comor (Madagascar).
8. A-Dasi.
9. Al-Yemen (Arabia Felix).
10. Tehama.
11. Al-Hejaz (Arabia Deserta).

the same extremity south. The difference is *only half* the globe; but as the termination of Africa joins the Sinæ and Sêres, they come to the same point. See Tab. Asia, xi. Insulæ maniolæ in quibus gignitur *magnes*.

No. 12. Al-Shujur (Seger).
13. Al-Imama (Yamama).
14. Al-Habesh (Ethiopia, Abyssinia).
15 Al Nuba (Nubia).
16. Al-Tajdeen.
17. Al-Bejah.
18. Al-Saueed (Upper Egypt. Said).
19 Al-ouhat-what (Oasis).
20. Gowaz.
21. Kanum.
22. Belad Al-Lemlum.
23. Belad Mufrada.
24. Belad Nemaneh.
25. Al-Mulita u Sinhajeh.
26. Curan (Karooan, Kurêuè.)
27. Negroland.
28. Al-Sous Nera.
29. Al-Mughrub Al-Amkeen (Mogreb the West).
30. Afreekeea (Africa).
31. Belad el Gerid (Date country).
32. Seharee, Bereneek (or Desert of Bereníkè).
33. Missur (Egypt).
34. Al-Shâm (Syria).
No. 35. Al-Irak (Persian empire).
36. Fars (Persia Proper).
37. Kirman (Carmania).
38. Alfazeh.
39. Mughan.
40. Al-Sunda (Scindi).
41. Al-Hind (India).
42. Al-Seen (China).
43. Khorasan.
44. Al-Beharus.
45. Azerbijan (Media).
46. Khuwarizm.
47. Al-Shash.
48. Khirkeez.
49. Al-Sefur.
50. Al-Tibut (Tibet).
51. Al-Nufuz Izz.
52. Kurjeea (Georgia).
53. Keymâk.
54. Kulhæa.
55. Izzea.
56. Azkush.
57. Turkesh.
58. Iturâb.
59. Bulghar (Bulgaria).
60. Al Mutenah.
61. Yajooj (Gog).
62. Majooj (Magog).
63. Asiatic (Russia).

No. 64. Bejeerut.
65. Al-Alman.
66. Al-Khuzzus, Khosrs Caspian Sea).
67. Turkea (Turkey).
68. Albeian (Albania).
69. Makeduneeah (Maccdonia).
70. Baltic Sea.
71. Jenubea (probably Sweden).
No. 72. Germania (Germany).
73. Denmark.
74. Afranseeah (France).
75. Felowiah (Norway).
76. Burtea or Burtenea (Britain).
77. Corsica, Sardinia, &c.
78. Italy.
79. Ashkerineah (part of Spain). Q. Andalusia?

PART II.

DISSERTATION I.

ON THE SINÆ, THE SERES, AND THE TERMINATION OF ANCIENT GEOGRAPHY ON THE EAST.

I. *The Name of China.*—II. *Sinæ of Ptolemy in Siam, Sinæ of other Authors, and Séres the same; Periplús, Eratósthenes, Mela, d'Anville.*—III. *Relative Situation of the Sêres, with respect to Scythia, and India beyond the Ganges.*—IV. *Capital, Séra Metropolis.*—V. *Séres distinguished as Manufacturers of Silk.*—VI. *Intercourse between China, India, and Europe; Route from Ptolemy, Maës the Macedonian.*—VII. *Modern Route—Marco Polo, Rubruquis, Carpin, Goez.*—VIII. *Route of the Sésatæ from Arracan to China—Dionysius Periegêtes.*—IX. *Intercourse by Sea—Mela, Rajah of Pliny, Cosmas Indicopleustes.*—X. *Golden Chersonese, Voyage from Ceylon thither, Coast of Coromandel, Masulipatam, Ganges, Arracan, Ava, Siam, Cattígara.*—XI. *Longitudes and Latitudes of Ptolemy, however in Excess, still the Cause of modern Discovery; Navigation towards the West from Spain—Roger Bacon, Columbus, Map of Ptolemy; Eulogy of Ptolemy.*

I. THINA, Sinæ, and Tziniftæ[1], so nearly resemble China and the Chinese[2], that upon the firſt view of these appellations, we are naturally led to conclude that they are the

[1] Tzina, and Tzinitzæ, and Tzinistæ, are the orthography of Cosmas Indicopleustes; and of the country meant there can be no doubt; for he mentions the silk brought by land from that country to Persia, 4500 miles; but he says, the passage by sea is much longer. And then adds, Περαιτέρω δὲ Τζινίστας οὐδὲ πλέεται οὐδὲ οἰκεῖται. Beyond the Tzinistæ there is no navigation, or habitable country. Montfaucon, Nov. Col. Patrum, tom. ii. p. 138.

[2] See Gibbon, v. 486. μέγας Τζαὺς. Chiaus.

same. Sêrica also, the Country of the Sêres, which produces the silk, and the only country which originally produced it, is so pre-eminently and characteristically the same country, that if Ptolemy had not assigned two different positions for the Sinæ and the Sêres, there would probably have been no dispute upon the question at the present hour.

But it is said the Chinese themselves know nothing of this name. This, however, is of little weight in the subject of our inquiry; for the same nation in Europe which we call Germans, are styled Almains by the French, and Teutsch [3], or Teudesch, by themselves. The Jesuits who were in China have, however, endeavoured to find an approach to this sound in Tan-djin, Han-djin, the people of Tan [4] or Han, two of their early dynasties; and in Chen-si, one of the principal provinces: but upon these similarities there is little dependance; for it is generally allowed, that the principal native appellation is Tchou-koue [5], the Central [6] Kingdom; and every nation in the world, from vanity, from relation to all the regions around, or from ignorance, is entitled to the same distinction.

But let us first inquire, how this name was brought westward? Manifestly not by the north, or by land, for the name obtained by that conveyance was Kathay and Kitai, an appellation [7] belonging to a tribe of Tartars, who were in possession of the northern part of China from the year 917 to 1126, and had extended their conquests westward to Cashgar. They were driven out by another Tartar tribe called Kin; and the Kin were at-

[3] And hence Dutch in our own language.

[4] D'Anville, Antiq. de l'Inde, p. 179.

[5] Other names occur in Isbrandt Ides, the Jesuits' Accounts, &c. &c.

[6] Gemelli Careri in Churchill, iv. p. 340. writes, Kum-houe, Kumque, middle kingdom; and recites a variety of other names, p. 339.

[7] See Green in Astley's Collection, vol. iv. p. 438. from Gaubil, and the Jesuits.

tacked by the Moguls, under Jengis Khawn, in 1209. It is highly dubious whether this dynasty, whose name differs no more from Chin than *Kirk* from *Church*, was ever of celebrity sufficient to be known in India or Europe; but it is very possible that the Japanese, who called the empire Cin in the age of Marco Polo [8], derived the appellation from the Kin; and in the language of Marco, Cin is Cheen. From this source, however, the Macedonians could not have obtained the appellation of Thina: they were the first that brought this name to Europe; and their Thina they must have received either from the Arabs or Indians, who style it Cheen or Ma-Cheen. Cosmas, who received his information from Ceylon, by means of his friend Sôpatrus, terms the nation Tzinistæ and Tzinitzæ. This title approaches *Chinese* as nearly as it can be expressed in Greek letters. The same sound of the word was heard by the Portuguese, upon their arrival in India; and from them Cheena, or China, has descended to all the nations of Europe.

Cheen, therefore, by all these several navigators, was obtained as they advanced towards the East; and the first country that bears the resemblance of the sound is Cochinchina, called by the natives, and by the Chinese, Kao-tchii-chin [9]; by the Jesuits, Tchen-tchen; and by the Arabs, Cheen; the Sinia Sinarum of Al Edrissi. If then we reflect that all the kingdoms contained in the Great Chersonese, except Malacca [10], partake of Chinese manners, habits, policy, and government, it was a

[8] See Marco Polo, lib. iii. c. 4.

[9] But Captain Chapman says, Anam. Ind. An. Reg. 1801. Miscel. p. 84.

Perera's account in Hackluyt, ii. 2d part, 75. agrees in this derivation from Cochinchina, but says, the Chinese call themselves Tamagines, and their country Tamen. Has not Ta-ma-gen some relation to Ma-Cheen and Mangi?

[10] The Malays are supposed to be originally Chinese by Barrow, but their language is alphabetical.

natural consequence that the Arabs, when they first reached China, the superior and sometimes the sovereign of them all, should receive the name of Ma-cheen, or Great China, in comparison with these inferior kingdoms.

It is impossible to prove that these appellations are as ancient as the êra of Alexander, because history is silent; but the acquisition of the same sound by all the nations which advanced by sea from the West towards the East, from the time of Alexander to the date of the Portuguese discoveries, is a strong presumption in its favour.

The first mention of Thina by the Greeks, is in the Treatise of Aristotle[n] de Mundo (if that work be his); but the full notice of it is by Eratósthenes, and as Eratósthenes lived under the second Ptolemy, his mention of Thina is early enough to suppose, that the Greeks had no knowledge of so distant a region before Alexander, and knew it then only in consequence of his expedition.

Though the Macedonians proceeded no farther east than the Indus, they certainly acquired a knowledge of the Ganges and Ceylon: this we learn from history; and if their inquiries went farther, they had Persians, Indians, and Arabians, in their army, from whose report they might gratify their curiosity. If Aristotle, therefore, had heard of Thina, this must be the source of his knowledge; or if the Treatise imputed to him be not his, the knowledge of Eratósthenes must have been acquired, either from the same source, or from those who sailed on board the fleets from Egypt, and met the Arabian, Indian, or Persian merchants in the ports of Sabêa.

[n] Aristotle died A. C. 322; Eratosthenes born 276.

Let us suppose, then, that the whole of this was report, and let us conjecture from analogy by what we know, in a later age, to be fact. It would amount to this—that there was a trade between Arabia and India, carried on every year; that the merchants from Arabia met others on the western coast of India, who came from the eastern coast; that those on the eastern coast traded to a country further east, called the Golden Chersonese; and that from the Golden Chersonese there was another voyage still to the east, which terminated at Thina; and that beyond Thina there was no proceeding farther, for it was bounded [12] by the ocean which had never been explored.

A report, coming through no less than five [13] intermediate channels, like this, would doubtless be loaded with much error, fable, and inconsistency; but that by some method or other it did come, is undeniable; for the map of Eratósthenes is recorded by Strabo. It actually contained Thina at the extremity of the world east, bounded by the ocean: it was placed in the parallel of Rhodes, in lat. 36° north; and what is most extraordinary of all is, that this parallel passes through the present empire of China, within the great wall. I shall not build more

[12] In this, Mela, Pliny, Diony'sius, Cosmas, and the Periplûs, are all agreed.

[13] In M. de Murr's Memoir on Martin Behaim, subjoined to the voyage of Pigafetta, p. 312. the number of transfers to which spices are subject amounts to twelve. 1. From the Spice Islands to Java.
2. To Ceylon.
3. The Golden Chersonese.
4. Taprobana, Sumatra.
5. Aden.
6. Algier.
7. Venice.
8. Flanders or Germany.
9. Prague and Franckfort.
10. England and France.
11. Sales by retail.
12. Petty Traders.

This seems to be cited from M. Polo, lib. iii. c. 38. but there I do not find it, either in Ramusio or Bergeron. The list, however, is not correct, and the account is inflamed: but if it were true, how strongly does it imply the necessity of finding a way to obtain this Eastern produce in its native soil? It is not clear that M. de Murr refers to M. Polo.

on this than it will bear, but a reference to M. Gossellin's Map, delineated on this principle, will prove the fact; and this fact cannot be founded on imagination, or arise from fortuitous coincidence: there must have been some information on which it stands; and the wonder is, not that it should be attended with many difficulties and inconsistencies, but that, after passing through so many hands, it should retain so much truth.

II. SINÆ OF PTOLEMY IN SIAM, SINÆ OF OTHER AUTHORS, AND SERES THE SAME; PERIPLUS, ERATOSTHENES, MELA, D'ANVILLE.

THE Thina of Eratósthenes, however, is not to be confounded with the Thinæ or Sinæ of Ptolemy; for these, whether we place them, with d'Anville, in Cochin-china, or with Vossius and Gossellin, in Siam, are in a very different latitude and position. Their country does not face[14] to the east, but to the west; and their latitude is not 36° north, but 2° 20′ south[15]. But the Thina of Eratósthenes and Strabo, is the Thina and Sinæ of the Periplûs, of which we have a certain proof; because the author says, that silk is the produce of their country. This country, therefore, is the Sêrica of Ptolemy; and in this sense, the Sinæ and the Sêres are the same, that is, they are both Chinese.—We must now advert to the gross error of the Periplûs, which places Thina, the capital of the Sinæ, under

[14] D'Anville, by placing them in Cochin-china, makes them face to the east; but in this he opposes Mercator (who had no system to maintain), as well as Gossellin.

[15] This is very well argued by Gossellin. Geog. des Grecs, p. 143.

the constellation[16] of the Lesser Bear; that is, in the age to which we refer it, within twelve degrees of the Pole; a climate which, so far from producing the silk-worm, must be uninhabitable by man. How this error arose, can be explained only by conjecture; but it appears to originate from one of two causes, which are perfectly different and distinct: for, first, we find the ancient geographers very observant[17] of the disappearance of the north Polar Star, as we advance to the south, and equally attentive to its re-appearance as we approach again to the north; it might happen, therefore, that the navigators who went to China, might have observed the loss of the Polar Star in the Straits of Malacca, and the recovery of it as they approached the coast of China; and this observation, conveyed through a multiplicity of reporters, may have caused the confusion between a latitude which lay under the Leſſer Bear, and a latitude where the Polar Star became visible.

But if this cause should be thought too scientific to have given rise to so gross an error, there is a second, much more probable and natural; which is, that if we suppose a delineation of the habitable world, formed upon the principle of that which I obtained from Al Edrissi[18] in the former part of this work, or like the Borgian[19] Table in Sir Joseph Banks's possession, the degrees of longitude diminish so hastily as we ap-

[16] Gossellin notices the approach of this star to the Pole. Ptolemy says, in his time it was 12 degrees from the Pole: Μικρᾶς Ἄρκτου . . . . . ἔσχατος δὲ τῆς ἐξῆς Ἀστὴρ ἀπέχειν τῷ πόλῳ μοίρας. ι. ϛ. Lib. i. c. 7. And Gossellin, Geog. des Grecs, tom. ii. p. 127. in the time of Solomon, makes the distance 17½ degrees.

[17] See Pomp. Mela, lib. iii. c. 7. In aliqua parte ejus [Indiæ] neuter septentrio appareat. See also Marco Polo, as he comes up from Ceylon along the coast of Malabar. Lib. iii. c. 23. Ramusio.

[18] The same circumstance occurs in Sanuto's Map, in the Gesta Dei per Francos. A little to the N.E. of the Caspian Sea, a notice is inserted, Incipit Regnum Cathay.

[19] In that map, Poland is almost as near China as it is to England.

proach towards the north, that they do not leave room to display all the regions which such a geographer as our author, must find it requisite to crowd into the space that he has to cover. This seems to be a natural source of the error which we find in the Periplûs; and this opinion is confirmed by what he immediately subjoins: "Thina lies," says he, "at the Lesser "Bear itself; and it is said to join the limits of Pontus[20], which "are towards[21] the north, and the Caspian Sea, with which "the Palus Mêôtis is connected, and issues into the ocean at "the same mouth." Here, besides the error common to many of the ancients[22], that the Caspian Sea was open to the Northern Ocean, we have a variety of other mistakes; added to which, China, Tartary, the Caspian, the Euxine, and Palus Mêôtis, are all huddled together in such confusion, as nothing but the construction of a map, on the principles here supposed, could produce.

Whether these excuses will avail in favour of an author, whose errors I wish not to extenuate, but explain, must be left to the judgment of others: beyond Ceylon, all he knew was from report; and on report only, procured, first by the Macedonians, and afterwards by Megásthenes, Daímachus, Diony'sius, and the merchants of Egypt, all the knowledge of the ancients must be founded. But whatever may be the error of position, there can be no mistake about the country intended. The silk fabric itself, and the material[23] of which it is made, are both speci-

[20] Perhaps the Euxine.

[21] Ἀπεσταλμένοις.

[22] "So that this is the true situation of "China, *not in the north parts*, as many times "I have heard say, *confining with Germany*." Perera in Hackluyt, ii. part 2d, p. 78.

A proof that in 1550, or thereabouts, it was still an opinion in Europe, that the north of China was near Europe.

[23] Θίνα, ἀφ' ἧς τό τε Ἔριον καὶ τὸ ὀθόνιον τὸ Σηρικὸν. P. 36.

fically applied, by the name of Sêrica, to the country of the Sinæ. This identifies them with the Sêres and Thina of the Periplûs; and that the Sêres are the Chinese, is generally allowed by the geographers of the present day.

D'Anville had[24] certainly no pre-disposition in favour of this opinion; for in passing through Scythia towards the Sêres, he arrives at the country of the Eighurs from five to ten degrees west of China; and in that province he finds a tree which produces a fruit like the cocoon of the silk-worm. Here, perhaps, his own judgment would have induced him to pause; but he yields honestly to conviction, and proceeding eastward into China, he fixes upon Kan-cheou, just within the boundary of the Great Wall, for the Sêra metropolis of Ptolemy. But there was in reality no ground for hesitation, nor any cause of solicitude for fixing on Kan-cheou, rather than Pekin, or any other great city, which might in that age have been the capital of the North; for the acquisition of general knowledge is all that can be expected in a question so obscure and remote; and the astonishing approach to accuracy which we find in Ptolemy, is one of the most curious geographical truths bequeathed to us by the ancients; for the latitude[25] of his Sêra metropolis[26] is within little more than a degree of the latitude of Pekin, and nearly coincident with that of Kan-cheou. Whether, therefore, we chuse one of these, or whether there was any other

[24] Antiq. de l'Inde, Supplement, p 233.

[25] Latitude of Sera metropolis 38° 36′; of Pekin 39° 45′.

[26] It is sufficiently ascertained by Gaubil, and other Jesuits, that Cambalu, or Khawnbalig, *the City of the King*, is Pekin. The residence here of Koblai for three months in the year, and the remainder in Tartary, bears a strong resemblance to the custom of Kienlong. It was the regal city from all antiquity, on the north-east border of Kathay, according to Marco Polo. See Green in Astley's Collection, vol. iv. p. 591.

metropolis in that age, we are equally in the country of the Sêres, and the Sêres are Chinese. They are the first of men, says Pliny [27] that are known on commencing our inquiries from the East, and their country fronted to the east. That there was nothing beyond them but the ocean, was the general opinion of the ancients; for, according to Strabo, "supposing [28] the world to be a sphere, there is nothing but the immensity of the Atlantic Ocean, which should hinder us from sailing from Spain to the Indies upon the same parallel."

III. RELATIVE SITUATION OF THE SERES, WITH RESPECT TO SCYTHIA, AND INDIA BEYOND THE GANGES.

If the Sêres, then, are the first nation of the known world [29] commencing from the east, let us next inquire into their situation relative to the countries north and south. On this head, Mela and Pliny both agree that their boundary on the north [30] is Tabis, and Taurus on the south; that all beyond them north is Scythia, and all beyond them south is India east of the Ganges. By the latter expression they mean, that the whole country, from the Ganges to the Eastern Ocean, is called India, comprehending all the regions in the Great Peninsula [31], which com-

[27] Lib iii. c. 17. or 20 Hard.

[28] P. 64. In respect to the parallel, this would have been true between Spain and China.

[29] In ea primos hominum ab oriente accepimus, Indos, Seras, Scythas. Spectant meridiem Indi, septentrionem Scythæ usque ad Caspium. Mela, i. 2.

Seres primi hominum qui nascuntur. Plin. vi. 17. or 20 Hard.

[30] Inter Tabin et extremum Tauri promontorium, Sêres. P. Mela, iii. 7.

[31] By the term of the Great Peninsula, I mean all the countries included in a line drawn from the mouth of the Megna, or Brahmaputra, to China, as the northern limit, and the Straits of Sincapura as the southern; comprehending Ava, Arracan, Pegu, Siam, Malaya, Camboya, Cochin-china, Lao, and Tonkin.

mences at the Ganges, and part also of the southern [32] provinces of China itself. What then are Tabis and Taurus, but two promontories advancing into the Eastern Ocean, and marking the limits of the Ancient Sêres? Scythia, according to Pliny, commences at the issue of the Caspian Sea into the Northern Ocean, and extends all round the continent, fronting north and north-east [33], till it comes to Tabis, which divides it from the Sêres; and what is meant by Taurus may be discovered in Strabo, who informs us, that Eratósthenes prolonged [34] Taurus from the Bay of Issus in the Mediterranean, across the whole continent of Asia, dividing it by the same parallel [35] of latitude, till it terminated on the Eastern Ocean, that is, the Sea of China. At the termination was Thina, on the same parallel as Rhodes, which is 36° north; and this parallel, if we suppose it to be correct, would embrace all the northern part of China, between latitude [36] 36° and 40°; in which case, we fix the southern limit at the promontory of Taurus, in 36°, and the northern at Tabis somewhere about 40°. A reference to M. Gossellin's Map [37], delineated in conformity to the idea of Eratósthenes, will explain this better than words; and whether these promontories be real or imaginary, this is the hypothesis or system

[32] The northern part of India, extra Gangem, terminates with Taurus. Strabo, p. 68.

[33] Pliny, vi. 17. or 20 Hard. æstivum orientem.

[34] So does Arrian in his Indica, p. 8. Schmeider.

[35] The cause of this supposition is, that the merchants who crossed this great belt of Asia, at whatever point it might be where their course directed, never crossed it back again towards the south, but proceeded through Tartary to China. By Ptolemy's route, they passed it in Hircania; by the route of the Periplûs, at Kabul; by the route of the Sesatai, or Besadai, in Lassa or Thibet; but Alexander, who came out of Sogdiana to the Indus, crossed it from north to south over the Paropamisus, perhaps at the Pass of Bamian.

[36] Seres media ferme Eoæ parte incolunt, Indi, et Scythæ ultima. Mela, i. 2.

[37] Geographie des Grecs.

of the ancients. If Tabis[38] has a representative, we might suppose it to be the termination of the Great Wall on the Yellow Sea, which divides China from Tartary; but the Wall does not end in a cape, and this must be left wholly to conjecture.

IV. CAPITAL, SERA METROPOLIS.

IN regard to the capital, the Sêra Metropolis of Ptolemy, though it is not indifferent where we place it, yet it may be thought hazardous to maintain that it is Pekin. Pekin, however, or the Northern Court, is one of the oldest cities in China: it is situated near the Wall, and well adapted to form a frontier town against an invasion of the Tartars, the only enemy which the empire has had to fear in every age. It is remarkable also that Ptolemy, in one place[39], calls Sêra the capital of the Sinæ, which makes it correspond with the Thina of the Periplûs; and this so essentially, that if the great error of the author in carrying it to the Lesser Bear could be set

[38] See Mercator's Letter to R. Hackluyt, who supposes Tabis to be much nearer Nova Zembla. Hackluyt, vol. i. 444.

"I suppose the sea between Nova Zembla "and Tabis to be fresh." Mercator.

[39] And not in one only. Lib. i. c. 11. Καὶ τὴν ἀπὸ τοῦ λιβίνου πύργου μέχρι Σήρας τῆς τῶν ΣΙΝΩΝ μητροπόλεως. Where the Latin text runs, Usque ad Serras quæ SERUM est metropolis. Whether Σινῶν, therefore, be a false reading, must be left to the critics; but so it stands in the edition of Hondius 1605, which I use. The Sêres and Sinæ are again mentioned in conjunction, lib. vi. c. 16. But c. 17. he observes that the Sêres lie *above* the Sinæ, that is, more to the north, both their country and the metropolis; and in this place he adds, that there is one communication between this capital and Bactra, and another between the same and Palibothra. After all, there is some confusion of the Sinæ with the Sêres; for, lib. vi. c. 16. he writes, through the Sinæ a line is drawn, μεχρὶ τῆς ἐκτεθειμένης πρὸς τῇ ἀγνώστῳ γῇ πέρατος; and these are manifestly not the same as his Sinæ in lat. 2° 20′ south. See Marcian Heracl. Hudson, pp. 29, 30.

aside, Thina and Sêra Metropolis would be identified. On account of that error, I do not insist upon this; but, upon the whole, the Sêres of Ptolemy coincide with the Sêres of Mela, Pliny, and Dionysius; and his latitude of the capital advancing so nearly to the parallel of Pekin, is one of the most illustrious approximations to truth that ancient geography affords.

Without affecting precision, we have now a position for the Sêres in the northern provinces of China; and this deduction, as it is founded on the information of the ancients, is not much controverted by the moderns. But we have another characteristic of the Sêres, derived from the produce of their country, which is silk: this beautiful fabric we know, from the Chinese themselves, was the original manufacture of their country—specifically their own, by the prerogative of invention; and though communicated to other countries in their neighbourhood, and from the first mention of it, procurable in the ports of the Golden Chersonese, at the Ganges, and on the coasts of Coromandel and Malabar, still was it so exclusively and pre-eminently the attribute of China, that the Sinæ were, from this very circumstance, denominated Sêres, or Silk-worms, by the Greeks. D'Anville was fully aware of all the authorities [40] that support this fact, and yet he objects, that they were styled

[40] Σῆρες, ζῶα νήθοντα μέταξαν, ἢ ὄνομα ἔθνους ὅθεν ἔρχεται καὶ τὸ ὁλοσήρικον. Hesychius in voce.

Sêres, animals that spin the silk thread, or the name of the nation from whence the genuine silk comes. Ὁλοσήρικον expresses a web wholly of silk, in contrast to the mixture of silk with other materials in the manufactories of Tyre, Bery'tus, &c.

Σηρῶν, σκωλήκων τῶν γενιώντων τὰ Σηρικά. Σῆρες γὰρ οἱ σκωλήκες. Hesych.

Sêrôn, the worms that produce the silk; for Sêres is equivalent to worms.

See also Pausanias, Eliac. ii. sub fine.

D'Anville has all these authorities. Antiq. de l'Inde, p. 233. And Vossius cites Pollux, Servius, and Simplicius, as all informed of the worm; but certainly the whole process was not known till Justinian's time.

Sêres before it was known that the material itself was the production of an insect.

V. SERES DISTINGUISHED AS MANUFACTURERS OF SILK.

THE mistakes[41] of the ancients on this subject; the fluctuation of the first reporters, who sometimes confounded it with cotton, and the opinion which long prevailed, that it was obtained from the bark or leaves[42] of particular trees, have been sufficiently discussed by numerous writers on the subject; but that the Arabs had met with it in India before there were any Greek fleets in the Eastern Ocean, can hardly be doubted, by those who read that the Macedonians obtained their first knowledge of it in the countries bordering on the Indus. Hither it must have been brought in that age, either by the trade which passed between Patala and Malabar, or by the caravans through Scythia, on the north; for that in so early an age it was manufactured in India can hardly be admitted, when we observe that the author of the Periplûs, four hundred years later, mentions it in Malabar, not as a native production or manufacture, but as an article brought thither from countries farther[43] to the east. But in regard to China, his account is very different; for there,

[41] Ubicumque apud veteres aut lini aut lanæ aut byssi Indici mentio fit, intelligendum id esse de Serico. Vossius ad Melam, lib. iii. c. 7.

The carding it from the leaves of a particular tree, and using water to facilitate the operation, occur in a variety of authors; that is, the cocoon was taken from the mulberry-tree, and wound off in water.

[42] See Anna Comnena Hist. Byz. where (p. 93.) an hundred *Blattia* are promised by Alexius to the emperor of Germany. The commentator says, βλαττίον is the Kermes, the Cochineal fly or worm, used for dying *red*; and that Blattia here signifies silk webs, or robes, dyed crimson, he adds, from Kermes, *cremoisi*, *crimson*, and from Σκώληξ, *scarlach*, or *scarlat*.

[43] Φέρεται ἐκ τῶν ἔσω τόπων. P. 32.

he says, both the raw material[44] and the manufacture were obtained. The pre-eminence in this respect is still due to the same country; for notwithstanding that almost all the nations of the East, and many in Europe, now breed the insect and weave the fabric, China is still *the Country of Silk;* the greatest quantity is still produced there, and of the best quality: it is the general clothing of the nation, and its superabundance still allows of a vast exportation to all the countries of the East, and to Europe itself.

In the course of this investigation, then, we have learnt from ancient authorities, that the Sêres are the Thinæ of Eratósthenes—the Sinæ of the Periplûs; that their country lies between Tartary, on the north, and India extra Gangem, on the south; that it is the remotest region[45] towards the east; that it is bounded on its eastern front by the ocean; that the ocean extends (in their opinion), without interruption, on the same parallel to the coast of Spain; and that silk was brought from this country, where it was originally found, to India, and out of India, by the Red Sea, into Egypt, and from thence to Europe.

VI. INTERCOURSE BETWEEN CHINA, INDIA, AND EUROPE; ROUTE FROM PTOLEMY, MAES THE MACEDONIAN.

But if silk was brought from the Sêres to India, there were but two means of conveyance—by land[46], or by sea. Both are

[44] P. 36.

[45] Διὰ μέταξαν εἰς τὰ ΕΣΧΑΤΑ τῆς γῆς τίνες ἐμπορίας ὀικτρᾶς χάριν οὐκ ὀκνοῦσι διελθεῖν. Cosmas, p. 137. Men do not hesitate to go to the *extremity* of the world for the purchase of the silk thread.

[46] See Astley, p. iv. 641. In Astley's Col-

specified in the Periplûs; for the author informs us, first, that the raw material and the fabric itself were conveyed by land, through Bactria, to Barugáza or Guzerat, and by the Ganges to Limúrikè.—But, omitting this for the present, let us examine what is intended by the route that is described through Bactria to Guzerat. A reference to the map will immediately shew us, that Balk, or Bactria, lies almost directly north of the western sources of the Indus; and as we know that the caravans at this day pass out of India into Tartary at Cabul [47], so is it plain that this was the usual course of communication, from the earliest times; and that the silks of China then came the whole length of Tartary, from the Great Wall into Bactria [48]; that from Bactria they passed the mountains to the sources of the Indus, and then came down that river to Pátala or Barbárikè, in Scindi, and from Scindi to Guzerat.

Ptolemy [49] has given us the detail of this immense inland communication; for, beginning from the Bay of Issus in

lection, Green has entered into this communication at large, with the ability that distinguishes his work throughout. I had not seen that Collection when I published the first edition, but have the satisfaction to find that the whole of his extensive research corroborates the opinion that I had formed. His work contains the travels of several missionaries between China and the north of India; but proves, at the same time, that Benedict Goez, whom I had fixed upon, was the only one that passed the whole length from Cabul to the Great Wall. In this revision of the work, I have made great use of Green's authorities, which are always good.

[47] The whole passage, as it stands in Purchas, is curious:—Beyond Cabul is Taul Caun, a city of Buddocsha (Badakshan). From Cabul to Cashcar, with the caravan, is some two or three months journey.....a chief city of trade in this territory is Yar-caun, whence comes much *silk*, musk, and rhubarb; all which come from China, the gate or entrance whereof is some two or three months journey from hence. When they come to this entrance..... by license they send some ten or fifteen merchants to do business, who being returned, they may send as many more; but by no means can the whole caravan enter at once. William Finch in Purchas, vol. ii. p. 434.

[48] And by another caravan, to Palibóthra, on the Ganges. Καὶ ὅτι οὐ μόνον ἐπὶ τὴν Βακτριανὴν ἐντεῦθέν ἐστιν ὁδὸς διὰ τῆς λιθίνης πύργης, ἀλλὰ καὶ ἐπὶ τὴν Ινδικὴν διά Παλλιμβόθρων. Ptolem. lib. i. cap. 17.

[49] Lib. i. c. 12.

Cilicia, he informs us, from the account of Marínus, that the route [50] crossed Mesopotamia, from the Euphrátes to the Tigris, at the height of Hierápolis; then through the Garamêi [51] of Assyria, and Media, to Ecbátana and the Caspian Pass; after this, through Parthia to Hecatómpylos; from Hecatómpylos to Hyrcania; then to Antioch in Margiana; and hence, through Aria, into Bactria. In this province, the line of Marínus falls in with that of the Periplûs, and from this it passes through the mountainous country of the Kômêdi [52]; then through the territory of the Sacæ [53] to the Stone Tower [54], and to the station of those merchants who trade with the Sêres; from this station the route proceeds to the Casii or Cashghar [55], and through the country of the Itagûri, or Eyghurs [56] of d'Anville, till it reaches Sêra Metropolis, the capital of China itself. The extent of this communication, which is in a right [57] line two thousand eight hundred miles, would have been protracted by the estimate of Marînus [58] to double the space [59] to which it is

[50] This route, traced in modern geography, would be from Scanderoon to Bir on the Euphrates; thence across Diarbekir to the Tigris; from the Tigris to Hamadan; then to the provinces south of the Caspian; and thence through Khorasan to Herat and Balk; from Balk through Tocharistan, Badakshan, Cashgar, and the Eighurs, to China.

[51] Aramæi?

[52] I have little hesitation in supposing that the Kômêdi are to be placed in Badakshan, as mountains are the attribute of the country.

[53] The Sacæ, without assigning them precise limits, answer more nearly to the Usbecks than any other tribe. The Stone Tower would be in the eastern part of their country, towards Kashghar; but their limitations are different in different ages.

[54] See Ptol. tab. vii. Asia. Isagûri.

[55] Is not Cash-ghar the fortress of the Cashes or Cassii?

[56] The Eyghurs were a superior tribe of the Moguls, and the only Tartars who had a written language, derived possibly from Thibet, as that of Thibet was from India.

[57] Take this line upon the whole, in latitude 35°, the degrees of longitude on that parallel are 56 miles English; and the number of these degrees, from Scanderoon to Pekin, is something more than fifty, which Ptolemy has extended to upwards of an hundred. The road distance is probably more than 3500 miles.

[58] Ptol. lib. i. c. 11.

[59] According to Marínus, it was 24,000 stadia from the Stone Tower to Sêra; that is, either 2400 or 3000 miles: the real distance is short of 1400. Ptol. lib. i. c. 12.

reduced by Ptolemy, and yet Ptolemy makes it more than an hundred degrees, or upwards of five thousand six hundred miles. But contracted as it is by modern geography, it is astonishing that any commodity, however precious, could bear the expence of such a land-carriage; or that there should have been found merchants in the Roman empire, who engaged in this commerce throughout its whole extent—who actually conveyed the produce of China by land to the Mediterranean, without the intervening agency of the nations which possessed the countries through which it passed. But this is a fact actually preserved by Ptolemy; for he informs us from Marínus, that Maes, a Macedonian[60], whose Roman name was Titianus, did not indeed perform[61] the journey himself, but that he sent his agents through the whole extent of this extraordinary peregrination.

In what state the Tartar nations then were, which could admit of such a traffic through all these different regions, it is now extremely difficult to determine; for though caravans have passed within these few years between China and Russia, and though there was a communication[62], and perhaps still is, between that empire and Samarkand, as also with the Usbecks, this was carried on by the natives of the respective countries, and afforded no passage[63] for merchants to pass throughout, from one extremity of Asia to the other.

[60] Lib. i. c. 11.

[61] Michael Ostaliof, a Russian merchant, had travelled from Archangel to China, winter and summer, for 14 years. Le Bruyn, i. 13.

[62] The centre of this traffic should be Cashgar; and so it appears in the journal of Benedict Goez.

[63] See the attempt made by Jenkinson, (Hackluyt, vol. i.) who went through Russia into the Caspian, and landed on the eastern coast; from whence he proceeded as far as Bokhara, but could penetrate no farther. His object was Cathai, and he is one of the best and bravest of modern travellers.

VII. MODERN ROUTE—MARCO POLO, RUBRUQUIS, CARPIN, GOEZ.

THERE was a period indeed, during the time of Zingis and his immediate successors, when the power of the Mongoux extended from the Sea of Amour to Poland and the Euxine; and when there was a regular intercourse, by established posts, throughout this vast extent. By means of this, Marco Polo, his uncle, and his father, Rubruquis [64], Carpin, and others, actually reached the court of Cambalu, and returned again by passports from the emperor. It was Marco Polo, the first of modern travellers who brought to Europe any consistent account of this vast empire—who entered China by the north, and returned by sea to Bengal. His route outwards is not easy to trace, because his descriptions diverge both to the right and to the left; but it is highly probable that he entered China nearly by the same route [65] as Goez did, from Kashghar: this would have brought him to Sochieu, or some other town in the neighbourhood, to reach which he might not have passed the Great Wall. But if this would account for his not mentioning it in the first instance, it does not solve the difficulty; for the court of Coblai, like that of Kien-long the late emperor, was a Tartar court, frequently kept in Tartary as well as China;

[64] Rubruquis, in 1254, found in Tartary, at Caracoram, a Frenchman born at Paris, Wm. Boucher; a woman of Metz, in Lorraine; and Basil, born of English parents in Hungary, c. iv.: all seemingly carried away prisoners out of Hungary by the Tartars. This account is previous to Marco Polo in 1295.

[65] In the fourteenth century, a communication was open betweeen Samarkand and China, there called Kutthau for Kathay, and with Coten, Kuttun, and with Cheen, and Macheen. Timour's Instit. p. 217.

and during the many years which he attended Coblai, he must have been in both. He did not bring the name of China to Europe, but Cathai and Mangi only, because he obtained those appellations alone which were in use among the Tartars; and it was several centuries later, before it was known that Cathai and China were the same. We are contending here only for the existence of the communication, and endeavouring to shew, that in the middle ages it was the same, or similar to that of the ancients. But from the time when the empire of the Tartars broke into separate governments, no travellers or merchants from Europe dared to attempt the dangers and exactions which must have attended them at every step, and when the progress of Mahomedism, in these northern courts, brought on an additional suspicion and hostility against every Christian who should have entered their country.

The only attempt in later times, that I am acquainted[66] with, is that of Benedict Goez[67], a Portuguese Jesuit, who left Agra in the beginning of 1603, and proceeded by Lahore to Cabul; and from Cabul, by way of Balk and Badakshan, to Cashghar. At Cashghar, the caravans from India met those which came from China; but so difficult[68] was it to proceed, that though Goez obtained the protection of the king of Cashghar, he did

[66] Grueber passed out of China, through Thibet, to Bengal, 1661. See others mentioned by Astley [*i. e.* Green], vol. iv. p. 543. but none of their journies are so extensive and complete as that of Goez.

[67] The account of Goez is in Trigault and Kircher, but it is here from Purchas, vol. iv. p. 310.

[68] In Jenkinson's time, 1589, the people of Taskent and Cashghar were at war, and there were no caravans out of Cathay. Hackluyt, i. 333. Those of Taskent were Mahometans; Cashgar, Tartars.

When the way is clear, it is nine months journey from Bokhara to Cathay. Ibid.

Jenkinson left Russia in 1588, reached Bokhara by the Caspian, and returned to Moscow, 1590.

not reach Sochieu, the first city within the wall of China, till the end of the year 1605; and at Sochieu [69] he closed his life and his travels, in March 1607, without having obtained permission to go up to Pekin, or join his brethren who were established in that capital.

The undertaking of Goez is one of the most meritorious, and his account one of the most interesting, that is extant; for it is a regular journal kept of his progress, specifying every country, and every place, through which he passed [70]. The enumeration of the days he travelled is three [71] hundred and ninety, besides some that we cannot ascertain, and exclusive of the delays he met with at various stations. But from him we learn, that Sochieu was the same sort of mart for the caravans of Cashghar, as Kiachta is for the Russians; that it was inhabited half by Chinese and half by Mahomedans; that the merchants of Cashghar were admitted into China, and suffered to go up to Pekin only under the colour of an embassy [72]; that they brought

[69] The city marked on Marco Polo's Map, where he entered China, is Succiur, which, with the Italian pronunciation, approaches very near to Socieu, called Sowchick, the first mart of Cathay by the Tartar merchants. Hackluyt, p. 336. Green, in Astley's Collection, says, this is confirmed by Gaubil and the Jesuits' maps, vol. iv. 588.

[70] In all which I believe it is unique.

[71] As estimated by Bergeron, tom. i. Traité des Tartares, p. 75. I cannot make them so many.

[72] The same sort of trade he mentions likewise from Cochin-china, Siam, Leuchieu, Corea, and eight tribes of the Tartars: they all come under pretence of an embassy, and all the presents they bring are styled Tribute: the emperor bears all their expences as soon as they enter China. In this, then, consists the policy—that if he bears the expence, he has a right to limit the time; and he affects to know of no embassies but from his tributaries. Apply this to Lord Macartney's embassy, and it proves why the ambassador was compelled to depart at a given day, and why his presents were inscribed with the name of Tribute.

The same circumstances are repeated by Josafa Barbaro (in Ramusio, tom. ii. f. 106.), which he received from a Tartar on the Don, who had passed from Samarkand to China, which was the course of the northern caravans in that age, 1450; and silks, though then made in Persia, fromed the principal article of the trade. This Tartar had been at Cambalu; had been introduced to the emperor, and referred to the ministers, &c. &c.

presents, which the Chinese call Tribute[73], every sixth year; that from the time they past the frontier, the emperor bore the charge of the embassy; and that the articles of commerce brought from Cashghar, were beautiful slabs of jasper, or variegated marble, and something that appears to be the agate, which we know, from Lord Macartney's account, the Chinese value so highly at the present day. Throughout the whole, the courage, perseverance, address, and patience of Goez, place him in the highest rank of travellers: he was deserted by all his companions but an Armenian boy, of the name of Isaac; and Isaac was so fortunate as to reach Pekin, from whence he was sent to Macao, where he obtained a passage to the Portuguese settlements in Malabar. Here he gave the account of his master's expedition and decease; and more particularly mentioned the surprize of Goez, in finding that Cathai was China, and Cambalu[74], Pekin.

Exclusive of the communication between Russia and China, which has been several[75] times interrupted and renewed, this journal of Goez is the only authentic account of the whole route; and it is of the greater importance, as it is a line much farther to the south than the track of the Russian caravans, and actually coincides with the detail given by Ptolemy, and implied by other ancient geographers; for Badascian, the Badakshan of Cherif Eddin, is the natural representative of Ptolemy's

[73] See Green in Astley's Collection, iv. 458. and 651. who mentions Andradas, Grueber, Desideri, Horace della Penna, Gerbillon, as exploring different detached parts of this route.

[74] See this noticed by Peter Possino, in his Commentary on Pachymeres, Roman edit. p. 585. Abulpharagi, p. 351. Ultra [Jugures et Muc.] est Magna Cathaia cujus incolæ, ut credo, antiquitus dicebantur Seres. Rubruquis, apud Hackluit, i. 92. ab ipsis enim veniunt optimi panni Serici. An. D. 1253.

[75] See Isbrundt Ides. Bell. Cox's Russia.

Kômêdi[76], and Kashghar, the country of his Kasii. Kashghar is likewise a kingdom of much importance, and a country of great extent; for Goez was employed from sixty to sixty-five days in passing it, and he had still from forty to fifty before he reached Sochieu.

VIII. ROUTE OF THE SESATÆ FROM ARRACAN TO CHINA.

Let us next examine the ancient accounts, in regard to this and other routes of the same sort. The first author that specifies this intercourse by land is Mela[77]: he says, the Sêres are a nation celebrated for their justice, and have become known to us by their commerce; for they leave their merchandize in the desert[78], and then retire, till the merchants they deal with have left a price or barter for the amount, which, upon their departure, the Sêres return and take. This assertion is repeated also by Pliny, and confirmed by the Periplûs[79]; for that the Sêsatæ of that journal are the Tartar tribes which trade with China, cannot be doubted: the extravagances recorded of

[76] If we may judge by the mountains attributed to both. Timour had always a body of Badacshans in his army, for the purpose of passing straits, climbing mountains, &c. according to Cherif Eddin.

[77] Lib. iii. c. 7.

[78] Commercium .... rebus in solitudine relictis absens peragit. Mela, lib. iii. c. 7.

[79] Ammianus Marcellinus (lib. xxxiii. p. 381. Paris, 1681) has recorded the same character of the Sêres, and the same mode of conducting their commerce with foreigners; but with the addition of a curious particular: that silk had formerly been confined to the great and rich, but in his time was within the purchase of the common people (nunc etiam ad usum infimorum sine ulla discretione proficiens). This circumstance proves, not only the great extension of commerce at Constantinople within thirty years after its foundation, by which the material was obtained, but likewise the proficiency of the manufacturers [perhaps at Tyre and Bery'tus] in preparing it for the market. The whole passage is worth consulting.

them, and the articles[80] mentioned, throw a shade of obscurity over this transaction; but that a fair[81] or mart is held for several days, and that the goods are left to the faith of those they deal with, is evident; and that this is a characteristic[82] of the Chinese trade, from the age of Mela to the establishment of Kiachta, is the uniform testimony of all that mention the commerce. Now that the Sêsatæ are a Tartar tribe cannot be questioned, when we find them described in the Periplûs; for they are a race of men squat and thick set, flat nosed, and broad faced. They travel with their wives and families, and convey their merchandize enveloped in sacks or mats[83]. These are manifestly

[80] The malábathrum is attributed to the Sêsatai by the Periplûs; and though it is much more natural that the Tartars should obtain betel from the Chinese, than the contrary (and so Vossius renders it), yet that the Sêsatai and Bêsadai are the same, cannot be doubted. The words of the Periplûs are, Σώματι κολοβοὶ, καὶ σφόδρα πλατυπρόσωποι, σιμοὶ εἰς τέλος. Of Ptolemy, Κολοβοὶ, πλατεῖς, καὶ δασεῖς, καὶ πλατυπρόσωποι. Λευκοὶ μεν τὰς χρόας· ὑπὲρ δὲ τὴν Κιρραδίαν ἐν ᾗ φασι γίνεσθαι τὸ κάλλιστον Μαλάβαθρον. Now the Kirrhadii of Ptolemy are at the eastern mouth of the Ganges, and there the betel grows, and is procurable; and if the Bêsadai were seated on the north of that country, they would be in Lassa or Thibet, both of which are Tartar countries, and might well be engaged in conducting this traffic between China and Bengal, or perhaps Arracan. But whatever obscurity there may be in this, it appears evident that Ptolemy and the Periplûs mean the same people; and, by the similarity of expression, copied from the same authority. It ought likewise to be observed, that Σιμοὶ εἰς τέλος, as it now stands in the Periplûs, is a reading of Vossius for ἐνεοὶ, or ἐνμοὶ, or something unintelligible in the first copy of the Periplûs. Upon the whole, therefore, if we interpret the Periplûs by Ptolemy, and conclude that the Sêsatai brought the betel from Bengal or Arracan, making them the same people as the Bêsadai, we have a consistent account of this article reaching the northern provinces of China, as it reached the southern by sea. That the betel is procurable in Arracan, is certain; for it grows abundantly in Ava. Symes's Embassy, p. 255. See also Dr. Buchanan's Account of the Burmas, As. Researches, vol. v. p. 219. The intercourse between the Great Peninsula and China, through Lassa, is confirmed by Green in Astley's Collection, vol. iv. p. 403.

[81] Vossius reads ὀρτάζεσιν for ἁρπάζεσιν.

[82] Cœtum reliquorum mortalium fugiunt, commercia expectant. Plin. vi. 20. Expetunt?

[83] Ἐν ταρπόναις, in sirpeis; mats made of rushes, bags, or sacks. So the Scholiast on Dionysius, 757. Οἱ δὲ Σῆρες πολῶντες ἅτως ὑποκρίνονται, τὸ τίμημα ἐπιγράφοντες τοῖς ΣΑΚΚΟΙΣ καὶ ὁ ἔμπορος ἐξ ἐπιγραφῶν ποιεῖται τὰς ἀποκρίσεις.

"The Sêres, who are the sellers, make the "first proposal, by marking the price on their "*sacks*; and the buyer, according to the "mark, fixes his price in return."

the Bêsadai, or Bêsatai, of Ptolemy, described under the same attributes, and almost in the same words, with the addition, that they are of a white complexion [84], and that the malábathron, or betel, is brought by them from the country of the Kirrhádæ, at the eastern mouth of the Ganges.

Here, therefore, we may discover another line of intercourse between India and China, which passed the mountains of Thibet [85], and joined the route which came from Cabul and Balk, or reached the southern provinces of that great empire by a shorter course; and this, perhaps, may explain a dubious [86] passage of the Periplûs already noticed, and may instruct us how the silk of China came down the Ganges, or the Brama [87] putra into Bengal, and from thence passed by sea to the coasts of Coromandel and Malabar.

The northern communication with China is intimated likewise by Diony'sius, who, after leaving the Oxus, the Iaxartes, and the Caspian Sea, on his progress eastward, mentions in order, the Sacæ, Tócharoi, the Phrooroi, and then the Sêres. If he had taken these regularly, the Tocharoi would have been the Tartars of what is still called Tocharistan [88], the Sacæ would be the Usbecks, and Phrooroi (possibly the Greek word φρῦροι [89], as an appellative, and not a proper name) expresses the *guard* or garrison at the Stone Tower in the country of the Sacæ, or the station in the territory of the Kasii, from whence the caravan

[84] Ptolemy, p. 177.

[85] The same intercourse between Thibet and China is mentioned at a mart called Silling or Sinning, by Turner, p. 372. Embassy.—Rhubarb is noticed, p. 294.; and the white quartz grit-stone, for Porcelane, p. 390. The trade between China and Ava is carried on at Jee. Symes's Embassy, p. 325.

[86] See supra, p. 478.

[87] Oedanes, Strab. Dyardanes, Curt. viii. 9. Schmeider, 21.

[88] The Turkistan of the Arabs.

[89] But Pliny writes Thuri, Θῦροι. Salm. 989.

proceeded to the Sêres. I mention these circumstances not so much on account of the geography, for we are dealing with a poet, as for the purpose of introducing his beautiful description of the silks woven by the Sêres:

. . . . . Σηρῶν,
Οἵτε βόας μὲν ἀναίνονται, καὶ ἴφια μῆλα,
Αἰόλα δὲ ξαίνοντες ἐρήμης ἄνθεα γαίης,
Εἵματα τεύχουσιν πολυδαίδαλα, τιμήεντα,
Ἐιδόμενα χροιῇ λειμωνίδος ἄνθεσι πόιης·
Κείνοις ἔτι κεν ἔργον ἀραχναίων ἐρίσειεν.

Nor flocks, nor herds, the distant Sêres tend;
But from the flow'rs that in the desert bloom,
Tinctur'd with every varying hue, they cull
The glossy down, and card[90] it for the loom.
Hence is their many-coloured[91] texture wrought
Precious, and bright in radiance, that transcends
The mingled beauties of th' enamel'd mead.
A web so perfect, delicate, and fine,
Arachnè and Arachnè's progeny
Might emulate in vain.

[90] Virgil supposed the Sêres to card their silk from leaves:

Velleraque ut foliis depectunt tenuia Seres.

Strabo, who does not mention the Sêres, still notices Sêrica, or silk: Ἔκ τινων φλοιῶν ξαινομένης βύσσου. P. 63. Byssus, or a fine material carded from the bark of a particular tree.

Pausanias meant to correct them both, when he wrote ὁι μὲν δὴ ἀφ' ὧν τὰς ἐσθῆτας ποιοῦσιν οἱ Σῆρες ἀπὸ ἐίδενός φλοιοῦ, τρόπου δὲ ἕτερον γίνονται τοιόνδε, Ἔστιν ἐν τῇ γῇ ζωύφιον σφίσιν ὃν Σῆρα καλοῦσιν οἱ Ἕλληνες.

"The thread from which the Sêres form "their web, is not from any kind of bark, "but is obtained in a different way: they have "in their country a spinning insect, which the "Greeks call Seer." 11 Eliac. in fine.

But Pausanias, though he had learnt that it was a worm, had not learnt more: he supposed it to live five years, and that it fed on green haulm. The workmen of Tyre and Berytus wrought the metaxa, or organzine, imported long before the perfect nature of the animal or the material was known. The true history and management of it were not complete, till the monks obtained it for Justinian.

[91] In honorem Deorum (coronas) *versicolores* veste Sericâ, unguentis madidas. Hunc

IX. INTERCOURSE BY SEA—MELA, RAJAH OF PLINY, COSMAS INDICOPLEUSTES.

I HAVE dwelt more particularly on the silk of China, because it is as essentially the distinguished produce of that country, as the pepper of Malabar, the muslins of Guzerat, the myrrh and frankincense of Arabia, are characteristics of these several countries; and I am very anxious to prove the communication with China by land, because it will presently appear that there was another line of intercourse by sea. If, therefore, the access both ways can be established, China alone, whether denominated Thina, Sinæ, or Sêres, must be the country intended; for no other can be approached by these two different ways; and these two, opened from the earliest accounts we have in history down to the present day, denote exclusively the appropriate character of that vast empire, as these circumstances can be applicable to no other. The establishment of this truth will afford a ready solution of the difficulty which arises from the position of the Sinæ in Ptolemy: they cannot be in China; and if we accede to the opinion of M. Gossellin, that they are in Siam, we must conclude that Ptolemy, who gives so imperfect an account of the voyage to Cattígara, knew nothing of a farther intercourse by sea with the Sêres, and that it was unknown in his age.

Mela, however, is said to assert it, if we may believe the interpretation of Vossius; but in Mela nothing more appears,

habet novissime exitum luxuria fœminarum. Plin. lib. xxi. c. 8. Hard.

We observe here, not only the slight silks flowered, but the introduction of them into religious ceremonies, as early as the time of Pliny.

than that from Colis to Cudum the coast is straight. His Colis is the southern point of India; and Cudum, according to Vossius[92], implies the Cudûtæ of Ptolemy, who are the nation nearest to the Sêres. The accuracy of geography we are not concerned with here, but the assertion; and what is meant may be seen by consulting M. Gossellin's[93] Map of Eratósthenes. But this evidence is dubious and obscure, and conduces nothing to the proof of any voyage performed. Little more satisfaction shall we receive from Pliny or the Periplûs; for the father of the Rajah, who came upon the embassy from Ceylon to Rome in the reign of Claudius, did not reach the Sêres by sea, but passed from India over the mountain Emôdus, the Himmalu of the Hindoos, and thence by an eastern route arrived at the country of Sêres, with whom he traded under the same restrictions as the merchants from Persia and Europe, or the Sêsatæ mentioned by the Periplûs.

Cosmas, as far as I can discover, is the first author that fully asserts the intercourse by sea between India and China; for he mentions that the Tzinistæ brought to Ceylon silk, aloes, cloves, and sandal-wood. The articles themselves are the specific exports of China still; and that the Tzinistæ[94] are Chinese, can not be questioned; for he expressly mentions their country, not merely as exporting, but producing silk; and specifies the distance from it by land as much shorter, compared with the voyage by sea. This circumstance can accord with no other country, at the extremity of the east, but China; for no other

[92] In Melam, lib. iii. c. 7.

[93] Geographie des Grecs.

[94] Vossius supposes the Siamese to have settled in Ceylon; and a temple found in Ceylon by Capt. Colin M'Kenzie, resembles the temples in Ava, Pegu, and Siam. Still the orthography of Tzinistæ is so essentially *Chinese*, that it precludes all doubt. See As. Researches, vol. vi. p. 438.

country is so situated as to have this double communication, consequently his Tzinistæ are Chinese: they have the same attributes as the Sêres—they are the same people; first, by the means of approach; and secondly, because they are surrounded by the ocean on the east, and because that beyond them there is no navigation[95] or habitation. This is the one point, above all others, which I have laboured to establish by this disquisition; and though I obtain not my proof till the sixth century[96], the evidence is consistent in all its parts, and complete. The inference is justifiable, that the same intercourse existed by sea, as well as by land, in ages much earlier, though the account had not reached Europe, and though the proof is defective. It is in vain that I have searched for any intelligence of this sort previous to Ptolemy, though I was very desirous to find it, and prepossessed in favour of its existence. But Ptolemy[97] fully asserts that he had received his information, relative to the Golden Chersonese and Cattígara, from those who had long frequented those countries; from merchants who traded thither, or who came from thence. It is to be lamented that he stops at this point, for those who had long frequented Cattígara, we should reasonably conclude, must have heard of China, or seen Chinese ships in that port.

Two passages in the Periplûs had almost induced me to press the author into the service, and compel him to bear testimony to the fact. The first is, where he mentions the difficulty of

[95] Περαιτέρω δὲ τῆς Τζινίτζας οὐδὲ πλέεται οὐδε οἰκεῖται. Cosmas, p. 138. Montfaucon, Nov. Col. Patrum, tom. ii.

[96] The date of Cosmas's work is 547, according to Montfaucon, Prefat. cap. i.

[97] Παρὰ τε τῶν ἐντεῦθεν εισπλεύσαντων, καὶ χρόνον πλεῖστον ἐπελθόντων τὴν τόπους, καὶ παρὰ τῶν ἐκεῖθεν ἀφικομένων πρὸς ἡμᾶς. Ptolemy, lib. i. c. 17.

going to, or coming from China; the second, where he notices that the malábathrum is brought from Thina by those who prepare it. But, upon a scrupulous review of these passages, I am persuaded that he considers only the communication by means of the Indus or the Ganges; and that though he allows an exterior sea on the east of China, the last place that a voyage by sea extended to, in his idea, was the Golden Chersonese. Had I formed a system, the want of such an evidence would have been a vexatious disappointment; and the more so, as my first contemplation of his language had persuaded me that I could apply it to this proof.

X. GOLDEN CHERSONESE, VOYAGE FROM CEYLON THITHER, COAST OF COROMANDEL, MASULIPATAM, GANGES, ARRACAN, AVA, SIAM, CATTIGARA.

THE next point to be considered is, how it should happen that Ptolemy should be unacquainted with the intercourse between the Golden Chersonese and China; that his information should terminate with the Sinæ and Cattígara, which, to all appearance, are on the western coast of Siam. But he acquaints us candidly himself, that though Marínus[98] had heard of the journey performed by the agents of Maes through Scythia to the Sêres, he had no account of any one who had made the voyage by sea from the Golden Chersonese to Cattígara: all that he knew therefore, even of Cattígara, was from report; and much less could he know of all that was beyond it, that is,

[98] Τῆ δὲ ἀπὸ τῆς Χρυσῆς Χερρονήσου ἐπὶ τὰ Καττίγαρα διάπλου τὸν ταδιασμὸν ὁ Μαρῖνος ἐκ ἐκτίθεται. Lib. i. c. 14.

of all that was to the east of the Straits of Malacca. Still it is extraordinary, however the information of Marínus should be deficient, that Ptolemy had obtained no farther intelligence from the merchants of whom he inquired.

The first view of his map would naturally suggest the idea which M. d'Anville has embraced: it looks like the termination of the peninsula of Malacca, and rises up again northward to his Sinus Magnus, as if we were entering the bay of Siam [99], the sea of Cochin-china, and China. But when we observe his Sinæ placed on the same parallel with Malacca, and his Cattígara carried down eight degrees [100] to the south, we see at once that both must be placed on a coast that has no existence, except in that vast imaginary continent which he has brought round the whole Southern Ocean, from Africa, in longitude 80°, to Cattígara, in 180°.

It is this circumstance which compels us, notwithstanding the appearance of his map, to coincide with the opinion of Vossius and M. Gossellin, that in reality he does not pass the Straits of Malacca and Sincapura; but that the account, which he had from report, carried him no farther than the western coast of Siam. On this head it has been already noticed, that Mercator, who had no system to maintain, makes the coast of the Sinæ front to the west, and this the latitudes and account of Ptolemy require; but if we place the Sinæ, with d'Anville, in Cochin-china, the face of the coast is reversed—it fronts to the

[99] Siam extends, or did formerly extend, across the peninsula; and the great bay, after passing the Straits of Sincapura, is therefore called the Bay of Siam.

[100] This is one of the circumstances that does not accord with the positions of M. Gossellin, assigned to Thina and Cattígara; but the deficiency of information requires great allowance. Perhaps it was not necessary to fix Cattígara at Merghi.

east, or south-east, and makes Ptolemy in contradiction with himself.

Let us then suppose, either that the personal knowledge of the Greeks ended with Ceylon, and that all beyond was obtained by inquiry of the natives, and the merchants who came from the East; or else, let us assume that some few Greeks had penetrated farther. In either case, we may discover that the information was defective, both from the language of the geographers, and the construction of their maps; still we can follow their authority with a sufficient degree of consistency, till we arrive at the Golden Chersonese; beyond that, though the reports continued of the Sêres and other distant regions, the fabulous prevailed over the reality. It is not saying too much, if we conclude all the ancients under deception in this respect, without exception—it is not attributing too much to Marco Polo, when we say, that he was the first European who passed by sea from China to India, and thence to Europe; or at least, the first whose writings testify that his account of this voyage, and this empire, is not founded on report, but personal knowledge and experience.

Is it meant then to assert, that the voyage was never performed previous to his time? Certainly not. He lived in the thirteenth century; and almost four centuries before that period, we know that the Arabs traded regularly from Siraf, in the gulph of Persia to China; and that the Chinese came to Malabar, perhaps to Persia and Arabia. But this Arabian account, though we have it now, reached not Europe previous to Marco Polo; and if this was true four hundred years before his time, though we were still ignorant of it in Europe, it is

just, by analogy, to conclude, that the same voyage was performed as many ages antecedent to the Arabian account, as that is previous to Marco Polo. Cosmas [101] asserts it in the sixth century; and the whole contributes to establish the general admission of the fact by inference, though the proof is defective.

The first error in this respect commences at Ceylon, the magnitude of which is irreconcileable with its actual extent; but as Mela asserts, that no one had circumnavigated [102] it, it is natural to amplify all that is unknown; and the magnificent terms in which this island is always spoken of in India, might readily contribute to the deception. Its distance also from the continent [103] is another error, which Vossius attempts to reconcile by supposing that the measure is taken from Coulam, or Covalam, to Point du Galle, because Pliny says, the harbour is on the southern side. Pliny likewise, as well as Mela, supposes the circumnavigation unattempted; and describes the

[101] Ἡ Τζινίστα τὴν μέταξαν βάλλεσα, ἧς ἐνδοτέρω ἐκ ἔστιν ἑτέρα χώρα· ὁ Ὠκεανὸς γὰρ αὐτὴν κυκλοῖ κατὰ ἀνατολάς.

Tzinista, which produces silk, beyond which there is no country, for the ocean encircles it on the east. This assertion proves, first, the silk organzine of China; secondly, that China is the same as the Sêres of Mela and Pliny [primi hominum qui noscuntur]; and thirdly, that Tzinista is not the Thina of Ptolemy; for his Thina is encircled by the ocean on the *west*. And again,

Ταπροβάνη . . . . ἀπὸ τῶν ἐνδοτέρων, λέγω δὲ τε῀ς Τζινίστας, δέχεται μέταξαν, ἀλοὴν, καρυοφυλλον, Τζανδάνην καὶ ὅσα κατὰ χώραν εἰσί.

"Tapróbana, or Seliediba, receives from "the countries farther east, particularly from "the Chinese, silk thread, aloes, cloves, sandal-wood, and whatsoever else is the pro- "duce of the country." We learn by this, that the cloves of the Moluccas reached Ceylon through the medium of China; from whence it follows, that the Chinese traded with the Moluccas in that age on the one hand, and with Ceylon on the other. Cosmas, Montfaucon, p. 337.

This account is in harmony with the account of the modern trade of the Chinese, by Martini. P. 120, & seq.

[102] Nec quisquam circummeasse traditur. Mela, lib. iii. c. 7.

[103] Twenty days in the ships of the country, seven in the vessels from Egypt. Both distances are in excess; for, from Covalam to Point du Galle is little more than 200 miles.

passage through the straits of Manar with incorrectness indeed, but not with less difficulty than Barthema passed them, almost fifteen hundred years later, when they still continued the usual[104] passage for travellers and merchants.

But from Ceylon, notwithstanding the mistake relative to the position of the coast, we can proceed with Ptolemy (who had obtained the native appellations of the country as wonderfully here as every where else), without hesitation to the Ganges; for we find

Paralia Sore-tanum	=	the Coast of Coro-mandel.
Nigama[105] - -	=	Negapatam[106]? D'Anville.
Chaberis River -	=	the Cavery in Tanjour.
Arcati Regia -	=	Arcot.
Maliarpha - -	=	Meliapoor, St. Thomè, near Madras.
Mesolia[107] - -	=	Masulipatam.

In the district called Mesolia we are to fix the point or cape, where those who left the coast took their departure to cross the bay of Bengal, and make their passage to the Golden Chersonese. This point, which has no name in Ptolemy, M. d'Anville has, with great propriety, fixed at Gordaware, a cape near the mouth of the Godávery, and from which it seems to take its title.

The whole of this course, from Ceylon to Mêsólia, is in correspondence with the Periplûs, and apparently with the account

[104] Barthema, lib. vi. c. 2.

[105] The position of Negapatam answers; but whether it is ancient, may be questioned.

[106] Nega-patam = Serpent Town; Nega or Naga = a Serpent, in the Malabar language. Baldæus in Churchhill, iii. 650. The country abounds in the Cobra de Capellas, which are sacred with the natives.

[107] Written Masalia in the Periplûs.

of the Arabs[108] in Renaudot. In all three, there is no evidence of a direct passage by the monsoon from Ceylon to the Golden Chersonese; and if Ptolemy's traders passed from the Godávery at once to the opposite shore, it is the boldest[109] adventure of the whole.

Concerning the Ganges there is no difference; but the Kirrhádæ of the Periplûs are west of the Ganges, and those of Ptolemy to the eastward. In this there can be little doubt that Ptolemy is the more correct; and unless a name decives me, I find in his Kirrhádæ the Kadrange of the Arabs, and the Arracan of the moderns.

We are now to enter upon the Great Peninsula, comprehending provinces distinguished by the titles of Gold, Silver, Brass, and the Golden Chersonese, off which lies an island of Barley, with its capital called the Silver City. The mere assemblage of these names is sufficient to prove, that they are fictitious and imaginary; and received, as they must have been, by report, they may be attributed either to the vain glory or caprice of the reporters, and not to the invention of the Greeks. Yet even here, Ptolemy preserves his privilege in recording some names that cannot be mistaken, and which afford us the means of ascertaining the country we are to enter on, however deficient we may be in particulars.

How little of the detail of this coast can be depended on, may

[108] The Arabs first mention the island of Najabulus, and then Betuma, or Meliapoor; if, therefore, Najabalus be the Nicobars, they crossed half the bay of Bengal, and returned to the coast of Coromandel. D'Anville supposes Nichobar and Najabal equivalent.

[109] Scrupulous attention to the monsoons is necessary for crossing the bay of Bengal, as I learn from the Oriental Navigator, and likewise to the parallel on which it is to be passed.

be seen by comparing a few of the names with the positions assigned them by d'Anville and Gossellin :

PTOLEMY.	D'ANVILLE.	GOSSELLIN.
Sada.	Sedoa.	Rajoo.
Berabona.	Barabon.	
Temala.	Cape Negrais.	Botermango.
Berobè.	Mergui.	Barabon.
Aurea Chersonesus.	Peninsula of Malacca.	Ava, and Daona. River of Ava.
Magnum Promontorium.	Cape Romania.	Pointe de Bragu.
Zaba.	Sincapura.	Bragu.
Magnus Sinus.	Gulph of Siam.	Martaban.
Sêrus Fluvius.	Menam. River of Siam.	River of Pegu.
Sinæ.	Cochin China.	Siam. Tanaserim.

Now, though I am convinced with Gossellin, that the Great Bay, the River Sêrus, and the Sinæ, are all west of the Straits of Malacca, and persuaded that the Sinæ are in Siam, it is not necessary to accede to his opinion, that Sinæ [110] Metropolis is new in respect to Ptolemy, or that Ptolemy knew nothing of Java; for Iabadioo, according to Greek pronunciation, is strictly Java-diu, the Island of Java. Ptolemy's position of this island is of no importance; for he has hardly one island correctly placed from Africa to Siam, and his ignorance of its extent is no more extraordinary than his augmentation of Ceylon. But the surprize is, that he should have obtained the name of Java; and whether we attribute this to the island now called Java, or to Sumatra, which M. Polo calls Java Minor, the appellation itself may well excite our astonishment. There

[110] M. Gossellin's opinion does not seem founded on the distinction between Sinæ and Sera Metropolis. If it were so, we must refer again to the Thina of Eratósthenes, compared with the Thina or Sera Metropolis of Ptolemy.

is, however, only one point in Ptolemy which can cause any doubt respecting the position of the Sinæ in Siam; which is, the mention of Ta-mala and Malai-oo Kôlon; for however the first may be questioned, the second so positively intimates the country of the Malays or Malacca, that we cannot help attending to the connection. The placing of this likewise in the neighbourhood of the Pirates, which has been the character of the Malays in all ages, contributes to the same supposition. I do not mention these circumstances for the purpose of invalidating M. Gossellin's system, for upon the whole I accede to it; but still the question is not cleared of all its difficulties; and it seems highly probable, that as Marínus had no evidence from any one who had performed the voyage either to the Golden Chersonese or Cattígara, that Ptolemy had no information which was consistent to direct him.

That the voyage itself was performed by native merchants may nevertheless be admitted, not only as it may be collected from the accounts of later ages, but as it is asserted by Cosmas. Desirous as I have been to find an earlier testimony of this, I have not succeeded; for though the Periplûs mentions the very large [111] vessels fitted out on the coast [112] of Coromandel, the limit of their progress was Khrusè, and short of Ptolemy's Cattígara. The remainder of the course to China does not seem to have reached Europe, even by report.

[111] Kolandiophonta. See Capt. Wilford's Chronology of the Hindoos, As. Researches, vol. v. p. 283. where he says, this expression means *Coilan boats* or *ships*.

[112] At Tarnassari, as Barthema writes, which is nearly in the same situation as the point from whence the fleets sailed, according to Ptolemy (Grynæus, p. 227. lib. vi. c. 12.)

His est varius multiplexque navigantium usus, sulcant alii maria *velocibus* complanatis admodum, quæ altiores aquas minime exposcunt; alii navigant *Liburnicis* geminam proram ha-

What then is the Golden Chersonese? a question easy to resolve generally, but very difficult to apply in its result to the different authors who have mentioned it. It is the most distant country east, according to Dionysius [113] and the Periplûs: it is called an island by both; an island of the ocean, by the latter, and placed adjoining to the eastern mouth of the Ganges. According to Mela, it is an island at the promontory Tamos. If Tamos [114] be the Tamala of Ptolemy, that cape must be either in Ava or Pegu, as we adopt the system of d'Anville or Gossellin; and if it must be an island [115], we might place it at the mouth of the Ava river, which passes through Pegu to the sea, and forms many islands at its different mouths. Here also Gossellin fixes his Golden Chersonese, and the river Chrysóana; but Ptolemy has two provinces—one of gold, and one of silver—before he arrives at the Chersonese; and if his Kirrhadia be Arracan, these provinces must be on the western coast of Ava, above the Golden Chersonese of his arrangement. All this

bentibus, geminumque malum absque tecto; est et *aliud onerariæ navis genus* quo enormia onera comportantur, nam ferunt aliæ ex memoratis onerariis navibus supra mille mercium dolia.. Imponunt his vastioribus navigiis cymbas, navesque actuarias in urbem Malacha nomine deferendas, quibus captum proficiscuntur aromata.

If Barthema had seen the Periplûs, he could not have employed language more conformable to it; for we have here the light vessels, which answer to the sangara and monoxy'la; and others of a thousand tons, corresponding with the kolandiophônta of our author: we have the same trade from Coromandel to Malacca, and the cargo obtained there consists of spices and silk. P. 232.

[113] Lib. i. c. 13.

[114] Tamos promontorium est quod Taurus attollit. Mela, iii. 7.

If Taurus were the only difficulty here, we could frame a solution of it; for Taurus, in the estimation of the ancients, is found in China and at the Indus, and this might be a chain branching from it in Ava, according to the idea of Mela.

But that Tamos is Tamala, or something near it, is evident; for it is added, ad Tamum insula est Chryse .... Aurei soli ... aut ex re nomen, aut ex vocabulo ficta fabula est. Ibid.

[115] An island, or a chersonese, are the same in Arabic, and from Arabs the Greeks possibly had their intelligence.

mention of gold would surely direct us to some conclusion, from the general nature of the country; and it does seem very probable, that both the wealth and ostentatious display of it in Ava, Pegu, and Siam, may well have given rise to the report which attributed so large a share of the precious metals to this great peninsula. The glory of Pegu and Siam has sunk under the ascendant of Ava; but in all these courts, the exhibition of gold [116] in their temples, public buildings, gallies, habits, and decorations of every kind was, while they existed, the summit of Oriental pomp, as it continues in Ava [117] to the present time; and if we should chuse to carry the Silver Metropolis of Iabadioo [118] to Sumatra, the splendour of Acheen, in its better days, would bear its proportion to the gold of Ava.

In this view it is natural to accede to the position of the Golden Chersonese by Gossellin; and if this be granted, his Sinæ and Cattígara in Siam follow of course. Some difficulties in the way of this conclusion have been already noticed, and a greater is, that Ptolemy should be ignorant of the voyage to the Sêres; but doubtless he went as far as he was authorized by the information he had obtained. I feel a regret in acknowledging this, because I should rather have received the con-

[116] See Cesar Frederick Hackluyt, ii. 236. and 239. Speaking of the Pagodas called Varelys, he says,—Also they consume great store of leaf-gold, for they overlay all the tops with gold, and some are covered with gold from the top to the bottom; so that with these vanities they spend great abundance of gold, for they cover them afresh every ten years.

See the same account copied by Fitch. Hackluyt, ii. 260, 261.

Nieuhoff writes of Malacca:—The merchants are so rich, that they used to compute by no less than bars of gold; of which a vast quantity was found near the rivers and on the mountains. Churchhill, ii. 215.

[117] See Symes's Embassy to Ava, pp. 186. 388. 413. 424. & passim.

[118] Ptolemy has dioo or diu in another form applied to a neighbouring group, Saba-dibæ, which is Sava-dive in the mouth of a Greek, fluctuating between the two letters like Selendib and Selen-dive.

firmation of this great geographer on the subject, than build it on inference or analogy. The evidence of Cosmas is all that remains, to prove that there was a communication by sea between India and China; and this is the point material to insist on, because the intercourse through Tartary, on the north, is indisputable; and if both these means of approach be established, the country of the Sêres must be China; for these circumstances cannot be appropriated to any other country at the extremity of the East.

XI. LONGITUDES AND LATITUDES OF PTOLEMY, HOWEVER IN EXCESS, STILL THE CAUSE OF MODERN DISCOVERY; NAVIGATION TOWARDS THE WEST FROM SPAIN—ROGER BACON, COLUMBUS, MAP OF PTOLEMY; EULOGY OF PTOLEMY.

IN the whole of the attempt in which I have been engaged, from the voyage of Nearchus to the close of the present work, it has been my endeavour to trace the progress of discovery, as carried on by the Greeks and Romans, from the time of Alexander to the date of the Portuguese discoveries; and the only object of consideration remaining is, the extent of their knowledge in Longitude and Latitude. The excess of longitude in Ptolemy is the subject of universal complaint; but this excess arises, in the first instance, from his assumption of five hundred stadia for a degree of a great circle; and secondly, from the vague method of calculating distances, by the estimate of travellers and merchants, and the number of days employed in their journies by land, or voyages by sea. Respecting this last

source of error, Ptolemy was upon his guard; for he repeatedly corrects the excess resulting from the calculation of days by Marínus, and reduces it sometimes a third, and sometimes an half, or even more. After all, however, we have an hundred * and eighty degrees from the Fortunate Islands to Cattígara, upon a space that in reality occupies less than an hundred and twenty. So that the ancients, instead of knowing one-half of the globe which we inhabit, in fact knew only one-third: still they knew that the earth was a globe; and one cause of their error, among others, perhaps was, that they had a desire to cover as much of it as they could.

The error in latitude [119], on the contrary, was so small, that in a view of this kind it is not worth regarding; for if we take it from the parallel through Thulè to the parallel through the Cinnamon Country, at eighty degrees, the difference from the truth is not more than six or seven degrees upon the whole, and with this we have little concern.

But upon the excess of longitude depended, ultimately perhaps, the grand problem of circumnavigating the globe, and the origin of modern discovery; for as Strabo [120] had said, that nothing obstructed the passage from Spain to India by a westerly course, but the immensity of the Atlantic Ocean; and as all the early navigators of Portugal had some acquaintance

[119] The latitude of Thulè is 64° north, in Ptolemy, and the parallel through the Cinnamon Country 16° 24′ south; that is, 80° 24′ upon the whole.

[120] Aristotle seems the author of this supposition, as well as of most other things that are extraordinary in the knowledge of the ancients. See Bochart, Phaleg. 169.

Συνάπτειν τὸν περὶ τὰς Ἡρακλείους στήλας τόπον τῷ περὶ τὴν Ἰνδικήν.

"The parts about the Pillars of Hercules "join to those about India." Aristotle has also preserved the opinion of the Pythagoreans, who made the Sun the centre of our system, with the Earth and the other planets revolving round it, which is the hypothesis adopted by Copernicus and established by Newton.

* 177 degrees. Lib. i. c. 14.

with Ptolemy, so from the first moment that the idea arose that a passage to India, or a circumnavigation, was possible, the account of Ptolemy lessened the difficulty by sixty degrees. The whole of this depends on the spherical figure of the earth, a truth said to be deduced from the Egyptians, and received by Anaxágoras, Thales, Aristotle, Strabo[121], and the philosophers in general. From the same origin, possibly, Moses, who was instructed in all the wisdom of the Egyptians, was not ignorant of this great truth; and certainly the author of the Book of Job had learnt that the earth was hung "upon nothing;" that is, if he did not know the power of gravitation, he at least knew the effect. The power[122] of attraction towards the centre of the earth[123] was likewise generally[124] acknowledged[125]; but the extension of gravitation to the whole system, and to the universe at large, with its various laws and properties, is the exclusive discovery of the moderns, and indebted for its establishment to the immortal Newton. This part of the question, however, is not our immediate concern; but to Ptolemy, respectable even in his errors, we owe the doctrine of the sphere, and the proper application of longitude and latitude. However he may have failed in adapting these to particular instances, even his failures have been productive of advantage; for when Columbus

[121] Strabo left the phênómena of the heavens and the form of the earth to the mathematicians; but his system is nearly that of Ptolemy.

[122] Strabo says, Σφαιροειδὴς μὲν ὁ Κόσμος, καὶ ὁ Οὐρανὸς· Η ΡΟΠΗ δ' ἐπὶ τὸ μέσον τῶν βαρέων. Lib. ii. p. 110. "The earth and the heavens "are both spherical, but the tendency is to- "wards the centre of gravity."

[123] Diogenes Laertius, p. 8. See also his account in Anaximander, Pythagoras, and Zeno, lib. vii. sect. 155.

[124] See M'Laurin's Newton, book i. c. 3. p. 45.

[125] Al-Edrissi, p. 2. Terra quod in earundem creaturarum grave est allicit velut magnes, qui ferrum ad se attrahit. More will be found in Stobæus, tom. ii. c. 25. ed. Heeren Gotting. 1792, 1794. Thales first predicted an eclipse of the sun. Diog. Laertius, p. 15.

launched into the Atlantic Ocean, he calculated upon sixty degrees less than the real distance from Spain to India[126]—a space equal to three-fourths of the Pacific Ocean; and when his course to India was stopped by the intervention of America, however his companions had been driven to despair by the length of the voyage, Columbus certainly met with land before he expected it, or at least before any estimate of his longitude could authorize the expectation.

The prevalent opinion, in the middle centuries, of a passage from Spain to India, is preserved in Roger Bacon; and his opinion is more worthy of regard, because his system is nearer[127] to the actual discovery in point of time. He then informs us, that according to Aristotle there was but a small space[128] of sea between the western coast of Spain and the eastern coast of India; and that Seneca mentions that this sea may be passed in a few days, with a favourable wind. Aristotle[129], he adds, had his knowledge of the East from Alexander; and Seneca, his knowledge of the South from Nero, who sent his centurions into Ethiopia. He might also have introduced the celebrated prophecy of Seneca the poet:

Venient[130] annis sæcula seris,
Quibus oceanus vincula rerum
Laxet, et ingens pateat tellus,

[126] India, in this sense, means the first land he would meet with coming from the west, which would in reality have been China.

[127] Bacon died in 1294.

[128] When Magalhans got out of the straits at C. Deseado or Desire, "now did he "conjecture the Moluccos were not far from "him; but therein he was deceived." Sir Wm. Monson's Tracts. Churchill. iii. 396.

[129] Rogeri Bacon opus majus, p. 183. He cites Aristotle, de Cœlo et Mundo; and Seneca, in his fifth book, Nat. Quest.

[130] This very passage is cited in the life of Columbus, by his son. Churchill, vol. ii. p. 556.

Tethysque novos detegat orbes,
Nec sit terris ultima Thule. MEDEA, l. 375.

A time will come, in ages now remote,
When the vast barrier by the ocean form'd
May yield a passage; when new continents,
And other worlds, beyond the sea's expanse,
May be explor'd; when Thulè's distant shores
May not be deem'd the last abode of man.

The Nuremberg Globe, as it is called, now published in Pigafetta's Voyage, favours the same opinion; in which the farthest isle to the west is named Antille[131], the existence of which was dubious, and yet the supposition of it was sufficient to make Columbus think he had reached the Antilles when he discovered the first island in America. This discovery is the more extraordinary, as it was the effect of design, and not accident[132]; when accident would have produced the same effect not ten years later; for it was accident alone that carried Cabral to Brazil in 1500; and the arrival at Brazil would as infallibly have been prosecuted to the exploration of the whole continent, as the achievement of Columbus.

But there is a circumstance still more singular, which attaches to this idea of a passage from Spain to India; for I have

[131] The Portuguese set down the island of Antilla in their maps, from the fabulous Atlantis of Aristotle, which, he says, was discovered by the Carthaginians, and forbidden to be colonized or visited. Life of Columbus, by his son. Churchill, ii. 570, 571. where Aristotle de mirandis in natura auditis is cited.

It seems highly probable that an island might have been seen and visited by some of the Carthaginians who traded to Cernè; for the Canary Islands are visible from the coast of Africa; and the Canaria of Ptolemy and Pliny, in this sense, when first discovered by the Portuguese, received this name most probably from finding it in these authors. The islands visible from the continent were the Canaries and Teneriffe, and both were found inhabited. Madeira, which was not visible, was not inhabited.

[132] At least only so far accident, as meeting with America instead of India.

in my possession, by favour of Lord Macartney, a copy of the map in the Doge's palace at Venice, drawn up for the elucidation of Marco Polo's travels, or at least certainly constructed before the discovery of America; for in this map there is nothing between the eastern coast of China and the western coast of Spain but sea; and though the longitude is not marked on it, we may form an estimate by comparing this space with others in the same sheet, which are known. Now this space measured by the compasses gives, as nearly as may be, the same distance from China to Spain, as from Ceylon to Malacca; that is, ten degrees, instead of an hundred and fifty; or less than seven hundred miles, instead of upwards of ten thousand. I cannot assert that this is the genuine production of M. Polo[133]: it has additions which belong not to his age, and contains much that he did not know; but it is evidently adapted to his travels, and contains at least one circumstance more ancient than the discovery of America. We have in it, therefore, some sort of guide to form our opinion of the geographers of that age, and the notions they had conceived of the unknown parts of the world; we have likewise the origin of those conclusions which led Columbus to attempt a westerly passage to India; in effecting this, he was only disappointed by find-

[133] The map, as it now appears, is very ill accommodated to M. Polo's travels, and if taken from an older one drawn up for that purpose, full of matter of a later date:

For, first, it carries him from China to Bengal by land, whereas he went by sea.

2. It delineates the Great Wall, which he never mentions.

3. It gives the Molucca Islands in detail.

And, 4, It describes the course of a Venetian ship, east of the Moluccas, in 1550, that is, almost sixty years after the discovery of America; and on that occasion mentions the Straits of Magellan. How this strange inconsistency should accord with that part of the map which gives no continent between China and Spain, is totally inexplicable; but that we cannot be mistaken in calling it Spain, is self-evident; for we have the river [Guadil] Quivir, Corunna, and the Sierra Nevada, or Snowy Mountains of Andalusia, all in their proper places.

ing a continent in his way, which has caused a revolution in the commerce of the whole world, and which may still cause other revolutions, incalculable in their effect, magnitude, and importance.

But if it is fruitless to look forward to future revolutions; we may at least reverse our attention, and direct it to those great masters in the science, who first taught mankind to measure the surface of the earth by a reference to the phênómena of the heavens—to Eratósthenes—to Hipparchus; and, above all to Ptolemy, who first established this system on a basis so firm, that as long as there shall be travellers and navigators in the world, it can never be shaken. The science, however advanced, is still only in a state of progression: it is still conducted upon his principles, and is in reality nothing more than a correction of his errors. Those errors were unavoidable, if we consider the difficulty of all first attempts, and the slender means of information in that age, compared with the advantages we possess at the present hour. But even his failures have conduced to the attainment of truth; and whatever reflections we may now cast on an excess of sixty degrees upon the measurement of an hundred and twenty, we must acknowledge, with d'Anville, that this, which was the greatest of his errors, proved eventually [134] the efficient cause which led to the greatest discovery of the moderns.

[134] La plus grande des erreurs dans la géographie de Ptolémée, a conduit à la plus grand des decouverts. Antiq. de l'Inde, p. 188.

PART II.

DISSERTATION II.

ON

EZEKIEL, XXVII.

THE produce of India or Arabia, mentioned in the Scriptures, consists of

Cinnamon[1].
Kasia.
Sweet Calamus, Calamus aromaticus? or, Calamus odoratus?
Stactè, or Gum.
O'nycha, or Skekeleth, a black odoriferous shell[2].
Gálbanum, a gum or resin.
Aloes.
Myrrh.
Frankincense.

Of these, cinnamon and kasia are the only articles which can be attributed specifically to India; and these, with all the others, were brought originally through Arabia into Egypt, Judêa, Phênicia, and Syria; and from these countries distributed round all the coasts of the Mediterranean. How cinnamon and kasia might have reached Arabia, by crossing no

[1] See Exodus, xxx. 23, et seq. Psalm, xlv. 8. Ezek. xxvii. 19.

[2] Parkhurst in voce.

more sea than the breadth of the Persian Gulph; or how they might have been conveyed to the coast of Africa, the reputed Cinnamon Country of the ancients, has already been sufficiently detailed; it remains now to be shewn, that Tyre possessed the principal share of this trade, from the earliest mention of that city in history, till its destruction by Alexander, and the foundation of Alexandria.

Tyre, in fact, enjoyed this commerce almost exclusively, except during the reign of Solomon, when Hiram found it his interest to unite with that monarch, who was sovereign of Idumêa, in order to secure a port for his fleets in the Red Sea; and the certain means of conveying the imports and exports over-land, from the Red Sea to the Mediterranean. Solomon[3], however, though he exacted a tax upon spices, and contributions from the kings and governors of Arabia, and shared in the profits of the trade, still had no fleets on the Mediterranean—no commerce on that sea. This circumstance gave Tyre a monopoly in regard to the whole communication with the Western World; for though Egypt and Syria might receive the same articles from the East, we read of no fleets or commerce from these countries towards the West, in the hands of their respective inhabitants.

The immense profits of this monopoly admit of calculation, if we dare trust to he Hebrew numbers in scripture; but Dr. Kennicott has shewn, that in some instances the amount expressed by these has doubtless been exaggerated; and if the numeration by letters was used in the original transcripts of the sacred writings, it is well known that numerary letters are

[3] 1 Kings, x. 15.

more subject to error, corruption, or exaggeration, in the manuscripts of all languages, than any other part of their text.

But let us suppose that the advantages of Hiram were equal to those of Solomon, which is not unreasonable if we consider, that though Solomon enjoyed the profits of the transit, Hiram had the whole emolument of the commerce with the West. Let us then observe that the revenue of Solomon is stated at six hundred and sixty-six talents of gold, which, according to Arbuthnot, amount to three millions six hundred and forty-six thousand three hundred and fifty pounds sterling—an extravagant sum at first sight! but not impossible, if we compare it with the revenues of Egypt, which, after the building of Alexandria, enjoyed the same commerce, and the same monopoly. Even at the present day, when the grand source of Egyptian wealth is obstructed by the discovery of the Cape of Good Hope, Sir Home Popham estimates the revenue at twenty[4] millions of dollars[5], equal to between four and five millions English; and when the same revenue, under the Roman government, may be estimated at three millions, which, allowing for the different ratio of specie, may be taken at four times that amount. Let us reflect on these extraordinary sums, before we conclude upon the impossibility of the same commerce, and the same monopoly, producing a revenue of three millions and an half to Solomon, upon the import and transit; and the same sum to Hiram, upon the export. I dare not assert these to be facts, because I think, with Dr. Kennicott,

[4] Of all this revenue, notwithstanding the Grand Seignor styles himself master of Egypt, scarcely a shilling reaches Constantinople.

[5] Sir Home Popham's concise Statement of Facts, p. 154.

that numerary letters are liable to error; but the revenue of Solomon is twice[6] stated at the same sum; and the contemplation of the Egyptian revenue in the same situation, and under similar circumstances, admits of imputing an immense emolument to this commerce, wherever it became a monopoly.

I have been led into this discussion, upon which every one must form his own judgment, by the specific detail of the Tyrian commerce, in the twenty-seventh chapter of Ezekiel, which, if we consider it only as historical, without any reference to the divine authority of the Prophet, is not only the most early, but the most authentic record extant, relative to the commerce of the ancients; as such, it forms a part of the plan which I have undertaken to execute. In this view I submit it to the reader; and though I pretend not to the power of throwing new light on the subject, and despair of removing those difficulties which surpassed even the learning of a Bochart fully to elucidate, still there will not remain any general obscurity which will prevent us from forming a right judgment upon the whole.

Tyre[7] was one of those states which had rejoiced at the destruction of Jerusalem, and the captivity of Judah; it became an object of prophecy therefore to declare, that she also was to fall by the hands of the same conqueror, who had subverted the throne of David; but so much more abundant were the means, or so much stouter was the defence of this commercial city, that the army of Nebuchadnezzar lay before it thirteen years. The date of its fall is the fifteenth after the

[6] 1 Kings, x. 14. 2 Chron. ix. 13. The great amount of this revenue is still further increased by the declaration, that the 666 talents of gold were exclusive of the taxes upon the merchants. Verse 14.

[7] Ezek. xxvi.

captivity of Judah, in the year 573[8] before Christ; and when taken, it was so exhausted by the siege, or so deserted by the inhabitants, that the conqueror found nothing to reward him for his labours. Prideaux supposes this city to be the Old Tyre on the continent; and that the inhabitants took refuge on the island, where the new city flourished again with almost the same vigour as its parent, till it was destroyed by Alexander in the year 332 A. C. two hundred and forty-one years after the reduction of it by the Babylonians. But, by the language of Ezekiel, it seems as if the city was upon the island in 573; for (in chap. xxvii. 3.) he says, Thou that art at the *entry*[9] of the sea; and in the following verse, and in c. xxviii. the expression is, "I sit in the *midst* of the seas," or, as it is in the original, "in the *heart* of the seas." The question is not of great importance; but as it rose again after its first reduction, by means of its situation, and the operation of the same causes, those causes ceased after its second fall, by the removal of Oriental commerce to Alexandria; and from that period it gradually declined, till it has become a village under the desolating government of the Turks; where Bruce[10] informs us, that he saw the prophecy of Ezekiel literally fulfilled[11]; for when he was there, the fishermen were "drying their nets upon the "rocks."

[8] Prideaux, vol. i. p. 72.

[9] *At the entering in of the sea.* Newcombe. An expression which seems to imply, the channel between the island and the main; but all the commentators unite in the same opinion with Prideaux.

[10] Vol. i. p. 62. oct. ed. And Hackluyt, ii. 309.

[11] Ezek. xxvi. 14. Maundrel, p. 49, says, it is not even a village, but that the few miserable fishermen who inhabit the place, shelter themselves under the ruins.

EZEKIEL, C. XXVII.

IN undertaking the elucidation of this chapter, perspicuity is the only object in view; omitting, therefore, all consideration of the sublimity of prophecy, or the majesty of language, I propose, first, to illustrate the commerce of Tyre in its various branches, by reducing the Hebrew appellations to the standard of modern geography; and, secondly, to give a commentary on the whole, deduced from the best writers on the subject. By this method, due regard will be had to the convenience of one class of readers, and the curiosity of another; and although I pretend not to assign every ancient name, with precision, to its modern representative, still there will remain such a degree of certainty upon the whole as to gratify all that have a pleasure in researches of this nature.

Let us then, in conformity to the opening of the prophecy, consider Tyre as a city of great splendour, magnificently built, and inhabited by merchants whose wealth rivalled the opulence of kings—who traded to the East by the intervention of Arabia, and to the West by means of the Mediterranean; let us add to this, that in ages prior to the celebrity of Greece and Rome, their fleets had braved the dangers of the ocean, and their people were the only mariners who were not limited within the circle of the Mediterranean; that they penetrated eastward through the Straits of Death[12], which were the termination of the Red Sea, and westward beyond the Pillars of Hercules, which were the boundaries of all knowledge to every nation but

[12] The Straits of Bab-el-mandeb, literally the Gate of Death.

their own; that they advanced northward to the British Isles, and southward to the coast of Africa on the Atlantic Ocean [13]. Let us contemplate these enterprizes as completed by the efforts of a single city, which possibly did not possess a territory of twenty miles in circumference; which sustained a siege of thirteen years against all the power of Babylon, and another, of eight months, against Alexander, in the full career of his victories; and then judge, whether a commercial spirit debases the nature of man, or unfits it for the exertion of determined valour; or whether any single city, recorded in history, is worthy to be compared with Tyre.

After this general view of the splendour of the city, we may proceed to the particulars specified in the Prophecy. First, therefore, Tyre procured,

Verse

5. From Hermon, and the mountains in its neighbourhood—Fir for planking.
   From Libanus—Cedars, for masts.
6. From Bashan, east of the sea of Galillee—Oaks, for oars.
   From Greece, or the Grecian Isles—Ivory, to adorn the benches or thwarts of the gallies.
7. From Egypt—Linen, ornamented with different colours, for sails, or flags and ensigns.
   From Peloponnesus—Blue and purple cloths, for awnings.
8. From Sidon and A'radus—Mariners; but Tyre itself furnished pilots and commmanders.

[13] If this should be thought dubious in regard to Tyre, it is undoubted in regard to its colony, Carthage. It is the universal opinion that the Phênicians came to Britain; but in what age, may be a doubt. If they reached Gades only in the times here alluded to, it was passing the Straits of Calpè, which at that period no other nation did.

Verse

9. From Gebal or Biblos, on the coast between Tripolis and Bery'tus—Caulkers.
10. From Persia and Africa—Mercenary troops.
11. From A'radus—The troops that garrisoned Tyre with the Gammadims.
12. From Tarshish, or by distant voyages towards the West, and towards the East—Great wealth. Iron, *tin*, lead, and silver. Tin implies Britain, or Spain; or at least a voyage beyond the Straits of Hercules.
13. From Greece, and from the countries bordering on Pontus—Slaves, and brass ware.
14. From Armenia—Horses, horsemen, and mules.
15. From the Gulph of Persia, and the isles in that gulph—Horns [tusks] of ivory, and ebony. And the export to these isles was the manufacture of Tyre.
16. From Syria—Emeralds, purple, broidered work, fine linen, coral, and agate. The exports to Syria were the manufactures of Tyre, in great quantities.
17. From Judah and Israel—The finest wheat, honey, oil, and balsam.
18. From Damascus—Wine of Chalybon (the country bordering on the modern Aleppo), and wool in the fleece. The exports to Damascus were costly and various manufactures.
19. From the tribe of Dan[14], situated nearest to the Philistines—The produce of Arabia, bright or wrought iron,

[14] Dan and Javan may in this passage both be Arabian; but if Dan be a tribe of Israel, its situation is between the Philistines and Joppa; and the people of that tribe would lie

Verse

casia or cinnamon, and the calamus aromaticus. In conducting the transport of these articles, Dan went to and fro, that is, formed or conducted the caravans. By one interpretation they are said to come from Uzal; and Uzal is judged to be Sana, the capital of Yemen, or Arabia Felix.

20. From the Gulph of Persia—Rich cloth, for the decoration of chariots or horsemen.

21. From Arabia Petrêa and Hedjaz—Lambs, and rams, and goats.

22. From Sabêa and Oman—The best of spices from India, gold, and precious stones.

23. From Mesopotamia, from Carrhæ, and Babylonia, the Assyrians brought all sorts of exquisite things, (perhaps *vestes Babylonicæ*,) blue cloth and broidered work, or fabricks of various colours, in chests of cedar, bound with cords, containing rich apparel. But if these articles are obtained farther from the East, may they not be the fabricks of India, first brought to Assyria by the Gulph of Persia? or caravans from Karmánia and the Indus, and then conveyed by the Assyrians in other caravans to Tyre and Syria? In this view the care of package, the chests of cedar, and the cording of the chests, are all correspondent to the nature of such a transport.

most convenient for the caravans between Petra and Joppa. From Joppa the merchandize would be conveyed to Tyre by sea, as it was at a later period from Rhinocolûra.

Verse

25. From Tarshish the ships came that rejoiced in the market of Tyre, they replenished the city, and made it glorious in the midst of the sea; and if we could now satisfy ourselves, with Gossellin, that Tarshish means only the sea in general, these ships might be either those which traded in the Mediterranean, or those which came up the Red Sea to Elath, or Leukè Komè, or any other port of Arabia. I am rather inclined to the latter, because, from the nineteenth to the twenty-fourth verse, every particular relates to the East, and apparently to the produce of India; but if we are to understand, literally, the joy of the ships in the harbour of Tyre, they must be those of the Mediterranean; and this supposition accords best with the Tarshish noticed in the twelfth verse, which, by the mention of silver, lead, and *tin*, evidently alludes to Spain, and perhaps to the British Isles.

Such is the historical part of this singular chapter relative to the commerce of Tyre, and illustrative of all ancient commerce whatsoever. It is uttered, however, in an age when the Tyrian fleets no longer sailed from Eziongeber, and when the commodities of the east were received by caravans from Arabia Petrêa, Sabêa, and Mesopotamia. From the time that Judah was separated from Israel, there does not appear to have remained vigour sufficient in either, to have maintained such a power over Idumêa[15], as to have secured a communication with

[15] The Idumêans seem at all times to have borne the yoke indignantly, from the time of David to the reign of Uzziah, and to have become hereditary haters of the Jewish nation.

the Elanitic Gulph; for the only attempt to recover this influence was made by the united efforts of both kingdoms, and a treaty between their two kings, Jehosaphat and Ahaziah; but the attempt was superior to their united force, and their ships were broken in Eziongeber. From this period [16], and probably from the termination of Solomon's reign, the Tyrians had no ships on the Red Sea, and supported their communication with it by land only; their track varying as the power of the neighbouring countries fluctuated. This point it is not necessary to insist on, but in an age posterior to the prophecy, and long after the second capture of the city by Alexander, we find that a line of intercourse was open between Rhinocolûra [17] and Petra. It is not, however, the object of the present inquiry to go lower than the second siege; but barely to mention, that even under the Roman Empire a spirit of commerce [18] subsisted still in Phênicia, and that Bery'tus, Tyre [19], and Sidon, were celebrated for their manufactures of silk, glass [20], and purple cloth, however obscured by the splendour of Alex-

In the day of Jerusalem, it was the children of Edom who cried, "Down with it, down "with it, even to the ground."

[16] 2 Chron. xx. 35. Jehosaphat at first refused a junction with Ahaziah; and, after complying with it, Eliezer declared, that was the reason why the power of God was exerted to defeat the undertaking.

[17] See Strabo (lib. xvi. p. 781.) where he mentions expressly the course of the caravans from Leukè Komè to Petra, and from Petra to Rhinocolûra. Rhinocolûra is the limit between Egypt and Palestine—the El Arish, so much noticed during the continuance of the French in Egypt. The distance may be compared with that between Elana and Gaza (p. 759.), which is stated at 1260 stadia, or 160 miles. Rhino-colûra is a Greek term, derived from the practice of cutting off the noses of the malefactors sent to garrison this frontier of Egypt.

[18] Nunc omnis ejus nobilitas Conchylio atque purpura constat. Plin. lib. v. c. 15.

[19] See Lowth on Isaiah, c. xxiii. last note.

[20] Sidon is called Artifex vitri by Pliny, lib. v. c. 15.

andria and the establishment of that city as the centre of Oriental commerce under the power of the Romans [21].

Over such a seat of mercantile power, opulence, and magnificence, at the period when it was ready to be overwhelmed by the invasion of the Babylonians, we may be allowed to breath the sigh of commiseration, however we resign ourselves to the justice of Providence in its destruction; idolatry, pride, luxury, and intemperance, we learn from the following chapter, were the cause of its punishment, and the instrument commissioned to inflict it, was an oppressor equally idolatrous and proud.

It remains only to subjoin the authorities, on which, known appellations have been substituted for Hebrew terms; on this head, if complete satisfaction is not attainable, we may, at least, hope for some indulgence, and much deference to the names of Bochart, Michaelis, Houbigant, and Archbishop Newcombe, the learned translator of the Prophet; and if I sometimes interpose a suggestion of my own, let it be considered hypothetically, and subject to the corrections of those who are better qualified as judges of Hebrew literature than myself.

[21] Tyre continued a strong and fortified place till the time of the Crusades. It was defended by the Mahomedans against Balduin, king of Jerusalem. Anna Comnena, p. 426.

COMMENTARY

ON

EZEKIEL, c. xxvii.

The four first verses represent to us the situation of Tyre: it is placed at the entering[22] in of the sea—in the midst of the seas—in the heart of the seas; expressions which seem to intimate that the city was on an island[23], but the general opinion of the commentators places it on the main, with the name of Palæ Tyrus, or Old Tyre, in contradistinction to the new city, which rose on the island out of the remnant of the inhabitants that fled from the king of Babylon. Its splendour[24] is described as *perfected* in beauty.

V. 5. Senir furnished fir for ship boards (planking); and Lebanon, cedar for masts.

[Sanir, vulgate, septuagint.

Firs, rendered cedars, sept. but firs, vulg. Chald. Newcombe.

Cedars, rendered cypress, sept.

Cedars, ארז, arez. Michaelis[25] says, the present inhabitants of Lebanon use ארז for a tree that answers to the cedar. See Parkhurst in voce רוה, and in בְּרוֹשִׁים, firs.]

[22] Newcombe's Translation.

[23] צור, Tsor, Tsoor, (from whence Συρια and Syria) signifies a rock. May it it not be the rock in the sea on which Tyre was built? Is Palæ-Tyrus on a rock?

[24] See Bochart, Phaleg. 303. where its origin and magnificence are described.

[25] But Michaelis has many doubts. See Question xc. proposed to the Danish Travellers.

Senir is part of Hermon (Deut. iii. 9.) "Hermon the Si-" donians call Sirion, and the Amorites call it Shenir." (1 Chron. v. 23.) "Manasseh increased from Bashan to Baal Hermon, " and Senir, and Mount Hermon. Newcombe." Hermon is a branch of Antilibanus, from which the springs of Jordan issue; and thus very properly joined or contrasted with Lebanon. Lebanon signifies white, and snow lies upon Lebanon in summer.

V. 6. Bashan produces oaks, for oars. Bashan is the Batanêa of the Greeks, east of the sea of Galilee, possessed by the half-tribe of Manasseh. "We do not readily see why " cedars should be adapted to masts, or oaks used for oars. " Cedar, however, is light; but oaks have neither elasticity or " levity, but strength only. Houbigant alone renders it alders, " for this reason." Abp. Newcombe.

בַּתְאַשֻׁרִים Bath-Ashurim, rendered Ashurites in our English Bibles; but in the margin, Chaldee and Parkhurst, *box tree;* as if from תְּאשׁוּר Thashur, and so תַּתַּאשֻׁרִים Bathashurim, in one word. The whole sentence would then stand thus, as Archbp. Newcombe renders it: "Thy benches have they made " of ivory, inlaid in box, from the isles of Chittim." The Chaldee seems to refer these to the ornament of houses, &c.; but the vulgate has, expressly, *transtra*, or *the thwarts* of gallies; and our English Bible, *hatches* in the margin. Chittim is applied to Cyprus by Josephus—to Macedonia, in the first book of Maccabees; but to Italy and the islands round it, particularly Corsica, by Bochart. Lowth on Isaiah xxiii. considers Chittim as comprehending all the isles and coasts of the Mediterranean; and Jerome, as the islands of the Ionian and Egêan Sea. The latter appear to correspond best with the im-

portation of box wood from Cytôrus in the Euxine, the place most celebrated, poetically, for that production; and the box wood of Pontus and Asia Minor is imported at this day into the Port of London, from Smyrna. The Chaldee renders it Apulia, and the vulgate, Italy.

V. 7. Fine linen of various colours, from Egypt, was used as a sail, or rather as a flag for ensigns. (Vulgate, Chaldee, Newcombe.) Scarlet and purple, from the Isles of Elisha, for a covering or awning to the gallies. Scarlet is rendered by Hyacinthus in the vulgate and Chaldee, that is, the colour of the Amethyst; and the Isles of Elisha are Elis, Hellas, or Peloponnêsus. The purple of Lacônia was the finest dye next to the Tyrian; and the purple cloth of that province was possibly employed, because it was cheaper than that of Tyre, which was reserved for the use of kings. Elisha is one of the sons of Javan (Gen. x. 4.); and as Javan is the general title for the Greek nation, Elisha may justly be taken for a part. (Bochart, Phaleg. 155.)

V. 8. Zidon and A'radus furnished mariners, but the pilots or commanders were Tyrians: "Thy wise men, O Tyrus, that "were in thee, were thy pilots." Zidon is too well known as the parent of Tyre, to require farther notice; but A'radus is on an island like Tyre, at the mouth of the Eleútherus, to the north of Tripolis, and much celebrated for its commerce by the ancients. In the modern title of Ruad, it preserves a nearer resemblance to the Hebrew Aruad, than to the Greek A'radus. Bochart (Phaleg. 305.) gives a large account of this place from Strabo, lib. xii. 753. consisting of many interesting particulars.

V. 9. The ancient inhabitants of Gebal were caulkers in the harbour of Tyre: they were mariners likewise, bringing merchandize to that city (Chaldee), or sailing in the Tyrian ships to the westward of the West; ἐπὶ δυσμὰς δυσμῶν (in occidentem occidentis, septuag.); to the extremity of the West. Perhaps we find a rudiment of this reading in the Hebrew; for Archbp. Newcombe observes, that five manuscripts read לְעֶרוֹב layarobh, the *evening*, or *west*, which the sept. followed, probably instead of לְעֶבר layabhar, *beyond*. If this could be admitted, the extremity of the West would at least be Spain, and might be Britain. Gebal, according to Bochart, is Biblos; and Gebail[26] is the name of that place at this day, according to the position of d'Anville in his Map of Phênicia. Laodicææ propinqua sunt oppidula Posidium, Heraclium, *Gabala* deinde Aradiorum maritima regio. (Bochart, 305. from Strabo, lib. xii. 753.)

V. 10. Persia, Lud, and Phut, furnished soldiers for the armies of Tyre.

V. 11. The Aradians and Gammadim formed the garrison of the city.

Persia and A'radus are self-evident. Lud and Phut are rendered Lydians, and Libyans or Africans. (Vulg. sept. and Chaldee.) But Bochart and Michaelis think Lud an Egyptian colony, from Gen. x. 13. where Ludim is the son of Misraim; and Misraim, the son of Ham, is Egypt. Bochart, however, considers Lud as both Lydia and Africa; but joined with Phut,

[26] Geobeila 18 miles from Bery'tus. Abilfeda apud Schultens. Vita Saladini, Index Geog. Bery'tus.

as it is in this passage, it is more applicable to the latter, for Phut is the brother of Misraim. (Phaleg. 294.)

In this circumstance we find, therefore, that Tyre, like its colony Carthage, employed mercenary troops while the natives were wholly addicted to commerce. Gammadim is rendered Cappadocians. (Chaldee.) Medes. (sept.) Pigmees. (vulgat.) (from גמל Gamal, sesquipedales,) and Phênicians by Newcombe, but he adds Gamarim or Gomerim is in 8 MSS. and Gomer, according to Bochart, is Phrygia; (p. 172.) the true meaning seems irrecoverable. Still we may see that the Persian and African[27] mercenaries were for foreign service; and the Aradians, as joined in the same commercial interest, were entrusted with the defence of the city.

V. 12. Tarshish was a merchant in the multitude of all kind of riches, and traded in silver, iron, tin, and lead; the mention of tin naturally suggests the idea of Britain, and that the Tyrians did come to Britain, is asserted by the general testimony of the ancients; but what Tarshish is, remains to be determined after all that has been written by every author that has touched upon the subject. Bochart has no doubt of its being Tartessus[28] in Spain, near the Straits of Gibraltar, and the articles of silver and lead might doubtless be procured in that country; but whether tin could be collected there as a general cargo is highly

[27] The modern Carthage, as the French call England, is said to be raising at this time a body of Africans for service in the West Indies. The omen is not auspicious, and the design is probably abandoned.

[28] Lamy objects to this very justly, that Tarshish is mentioned as a precious stone by Moses, before Tartessus could be in existence. He thinks Tarshish signifies gold, or a stone the colour of gold, the chrysolite or topaz; and that the voyage of Tarshish had a reference to this, as gold and precious stones were the produce of it. See Introd. à l'Ecriture, cap. iv. p. 425.

dubious; for though Diodôrus mentions that tin was found in Spain, the bulk of that metal was only obtainable in Britain; and as it is universally confessed that the Tyrians visited Britain, they might rather have gone thither to purchase it at first hand, than buy it in Spain, where it must have been enhanced by the expence of importation, and the profit of intermediate merchants. Be this however as it may, it is evident by the articles mentioned, that this was a western voyage, and so far whether to Spain or Britain is immaterial, for the great difficulty is, that Tarshish in scripture as clearly applies to an eastern voyage down the Red Sea, as to a western one towards Spain; this appears in the voyage mentioned in the first of Kings (x. 22.) "Solomon had at sea a navy of Tarshish with the navy of "Hiram." This was in the Red Sea, and brought a very different cargo—gold, silver, ivory, apes, and peacocks, (2 Chron. ix. 21.) and (again xx. 36.) Jehosaphat joined with Ahaziah to make ships to go to Tarshish, and they made ships in Eziongeber; so likewise, (1 Kings, xxii. 48.) Jehoshaphat made ships of Tarshish to go to Ophir for gold; and as the whole of this, by the mention of Eziongeber, directs us east to the Red Sea; so does the flight of Jonah as evidently direct us to a voyage west, on the Mediterranean, for the Prophet takes shipping at Joppa in order to flee to Tarshish.

For the purpose of reconciling these two opposite ideas, M. Gossellin supposes, that Tarshish means the sea in general, and he likewise supposes two voyages eastward, one to Ophir in Hadramaut, and another to Tarshish, which he states as no distinct place; but that the expression intimates a coasting voyage down the African side of the Red Sea, in which they

touched at several different ports, and were delayed by the change of the monsoon. The former part of this hypothesis, that Tarshish signifies the sea in general, I wish to adopt; and there is little to contradict this opinion, except the verse itself now under consideration; but in regard to two eastern [29] voyages, one to Ophir, and another down the western side of the Red Sea at large, I have great doubts; I shall, therefore, first collect the suffrages of the interpreters, and then compare the principal texts of scripture concerned; after this, if the difficulty is still incapable of solution, no blame will attach to a failure which is common to so many writers of erudition and discernment.

Tarshish is rendered Carthage in the vulgate; but the objection to this is, that though tin and lead might be purchased in Carthage, as platina and tutaneg may be obtained in London, yet this is not enough; the whole chapter specifies the distinct produce of the several countries, and not the places where the produce might accidentally be found.

The septuagint render it Chalcedon [30], which is a city on the Bosphorus; but this seems to have arisen from a reference to the first sense of Tarshish, which is a precious stone, (Parkhurst says the topaz,) but, however, it may be doubtful whether a Chalcedony (which is an agate) or whether a topaz is meant by the septuagint. The rendering of Tarshish by Chalcedon is evidently an allusion to the name of a precious stone.

[29] 1 Kings, xxii. 48. "Jehoshaphat made "ships of Tharshish to go to Ophir for gold." Here the ships of Tharshish are those that go to Ophir; and this concludes against the two voyages of Gossellin, one to Ophir and one to Tharshish.

[30] Χαλκηδὼν and Καρχηδὼν are easily interchanged.

The Chaldee Paraphrase says expressly מִן יַמָּא Min yama; *de mari* adducebant mercimonia, which is in conformity with Gossellin's opinion.

The English Bible and Newcombe's translation preserve the Tarshish of the original.

Let us next observe the usage of this term in scripture. It occurs first in Gen. x. 4. where the sons of Javan are Elishah, Tarshish, Kittim, and Dodanim. Now Javan is the general name for Iônes[31] or Greeks, and his descendants ought to be the division of that nation, as the sons of Misraim (Gen. x. 13.) are the distinctions of the tribes of Africa. In conformity to this, Elishah has been rendered Elis, Hellas, or Peloponnesus; Kittim the Greek Isles, or perhaps Macedonia; and Dodonim Dodona, or the western side of Greece towards the Hadriatic. What then would be Tarshish? Bochart and others are not content with this; he supposes Kittim to be Italy, and Rodanim[32] for Dodanim, to be Gaul about the Rhodanus or Rhone, and Tarshish to be Spain; that is Tartessus. Parkhurst likewise admits Tartessus, and Michaelis imagines, that the fleet fitted out at Eziongeber, circumnavigated the continent of Africa to reach Tartessus by the Indian and Atlantic Ocean. This solution he assumes, because the voyage was of three years continuance, and because Solomon had no ports on the Mediterranean. The latter reason cannot be admitted while Solomon and Hiram had a joint concern; for during that union, the fleet might have sailed from Tyre. But the three

[31] Daniel, viii. 21. מֶלֶךְ יָוָן Melek Javan, the King of Grecia, id. x. 20. xi. 2.

[32] Rodanim is not merely an assumption of Bochart's; it is read in several MSS. and in the margin of our English Bible. The daleth and resh are easily interchanged: ד for ר.

years allowed for the voyage are not sufficient, if calculated by the voyage of the Phênicians sent by Neco, which is probably the ground of Michaelis's estimate; for they were three years in reaching the Mediterranean; and consequently the voyage round Africa to Tartessus, and back again, would require not three, but six years for its completion.

Upon a view of these difficulties, if we should return to Javan, and wish to establish all his family in Greece, we ought to find a situation for Tarshish in that country; and if this cannot be done, it must be confessed that the position of Tarshish cannot be discovered by the text of Genesis the tenth. Omitting this, therefore, for the present, we may proceed to other passages connected with the subject of inquiry.

It has been proved already (from 1 Kings, xxii. 48.) that the ships of Tarshish built by Jehoshaphat at Eziongeber, went east to Ophir, and (from Jonah, i. 3. iv. 2.) that Jonah, by embarking at Joppa, fled westward on the Mediterranean. Now the sea is common to both these voyages, but no one specific place, country, or city, can be common to both; and upon a careful examination of all the passages adduced by Gossellin, and all that are to be found in the concordance, there is not one which may not be rendered justly by *the sea*, as Gossellin has asserted. The Vulgate and the Chaldee vary in different places, but the prevailing construction is *mare* or *maria;* and the Vulgate (on the 1 Kings, x. 2. xxii. 49.) has ships of Africa, which might give rise to the opinion of Montesquieu and Bruce, that Ophir was at Sofala; but Africa is itself a suspected term in Hebrew; for it is Latin, not used by the Hebrews, whose

phrase was Lubim, and little by the Greeks [33], who adopted Libya from the same origin; but in the Chaldee it is in so many letters אֲפְרִיקָה Africa (1 Kings, xxii. 49.), and this term is doubtless, in comparison, modern. The other texts are, if any one should wish to examine them. (2 Chron. ix. 21. xx. 36, 37. Psalm xlviii. 7. Thou breakest the ships of the sea, lxxii. 10. the kings of Tharsis; kings beyond sea in Sabêa. Is. ii. 16. xxiii. 1. the burden of Tyre, howl ye ships of Tarshish, naves maris. Vulg. Chald. ibid. ver. 6. Pass ye over to Tarshish, transite maria. Vulg. Chald. and at ver. 10. Tyre is called daughter of Tarshish בַּת תַּרְשִׁישׁ Bath Tarshish, daughter or virgin of the sea, Filia maris. Vulg. And what appellation can be more proper, for such a city which owed its existence to the sea? Is. lx. 9. ships of Tarshish, naves maris. Vulg. Chald. lxvi. 19. I will send them that escape to Tarshish, ad gentes in mare. Vulg. ad provincias maritimas. Chald.)

Upon the evidence of all these passages, there is no hesitation in subscribing to the opinion of Gossellin, but his double voyage down the Red Sea is by no means equally apparent. There is likewise great reason to adopt Parkhurst's idea, that they were large and strong ships, fit for distant voyages; or if the reading of the septuagint (Ez. xxvii. 9.) could be admitted, we might add, that they were stout enough to pass (ἐπὶ δυσμὰς δυσμῶν [34]) to the extremities of the west, to the Atlantic and Britain; or to the east, through (Babel Mandeb) the Straits of

[33] Perhaps never till after their connection with Rome.

[34] That we may not mislead, it is necessary to observe, that this term is not used in the verse under contemplation, but in v. 9. I wish to find any where an extreme western voyage, to Gades or to Britain, which I must confess is not perfectly clear.

Death, and so to the southern coast of Arabia. This account we have from scripture, and it is clear; but the voyage to Britain, though generally admitted, is far more problematical, for the evidence of Strabo[35] goes only to prove, that a Phênician vessel was run ashore in order to deceive the Romans, which must relate to a much later period; and the testimony of Diodôrus Siculus[36] intimates, that even in his time, tin was brought from Britain, through Gaul, by a land carriage of thirty days, to the mouth of the Rhone, or perhaps to Marseilles. Still that the Tyrians did obtain tin is manifest from Ezekiel, and that they passed the Straits of Calpè, and reached Gades at least, is certain, for the temple of Hercules in that island was the Melcartha[37] of Tyre, whom, from his attributes, the Greeks styled the Tyrian Hercules.

V. 13. Javan Tubal and Meshech dealt in slaves and vessels of brass, intimating probably that they *all* dealt in slaves, for slaves came out of the Euxine and the countries round it in all ages into Greece, and still come to Constantinople. The Greeks of course carried these or others which they obtained by piracy, to Tyre as well as other maritime cities. Brass vessels will apply more particularly to Tubal and Meshech, which are usually rendered Tibarêni and Moschi, who, with the Chálybes and other inhabitants of the north-east angle of Asia Minor, have been in all ages, and still are the manufacturers of steel, iron, and brass, for the supply of Armenia, Persia, Greece, and all the eastern countries on the Mediterranean. (See Busching and Michaelis cited by Newcombe on this passage, and

[35] Strabo, lib. iii. p. 175.
[36] Lib. v. 347. Wess.
[37] Melcartha is Melek Cartha, the King of the City. Bochart.

Bochart.) Tubal and Meshech are generally mentioned together in scripture, and Tubaleni is as naturally Tybarêni, as Mesheck, which the Chaldee reads Mosock, is Moschi, while Javan, Tubal, and Mesheck, are all sons of Japhet. (Gen. x. 2.)

V. 14. Togarmah traded in horses, horsemen, and mules, which Bochart supposes to be Cappadocia, (p. 175, Phaleg.) but Michaelis with much greater probability, Armenia, for Armenia and Media were the countries where the kings of Persia bred horses for the service of themselves and their armies, and in later times Armenia paid its tribute from this source. See Newcombe, who cites the Greek Scholiast on Ezekiel, and Ez. xxxviii. 6. The Chaldee renders it unaccountably by Germania. The objection to assuming Armenia for Togarma is, that Armenia is in every other passage represented by Ararat. (See particularly 2 Kings, xix. 37. and Isaiah, xxxvii. 38. and Jeremiah, li. 27.) I have not had an opportunity of consulting Michaelis Spicileg. Geographicum, and can judge of it only as it is cited in Newcombe.

Ver. 15. Dedan is mentioned in conjunction with the merchants of many isles; they brought horns (tusks) of ivory and ebony. Dedan is strangely rendered by the septuagint Rhodians. They must, therefore, have read a resh for a daleth; but Dedan [38] is doubtless on the southern coast of Arabia, for he is mentioned (Gen. x. 7.) with Seba, Havilah, Sheba, and

[38] I follow Bochart and Michaelis in placing Dedan on the eastern coast of Arabia, and I think they are right; but Dedan is mentioned with Tema, Jer. xxv. 23. and with Esau, xlix. 8. Tema is by Niebuhr supposed to be the Tehama, or coast of Arabia, on the Red Sea; and Esau is in Hedjaz. This makes a difficulty; but the countries mentioned with Dedan, and the articles imported, indicate the south-east angle of Arabia.

Raamah, all nations of Arabia and on the south. There is still a Dadena on the coast of Oman, opposite to Cape Jasque; and a Rhegma, within the Gulph of Persia, not far from Moçandon, is found in Ptolemy, corresponding with Raamah or Rahmah, in the opinion of Patrick. Without, however, insisting on these resemblances, we may be certain of the country from the other names with which it is united, and its produce; for ivory and ebony are furnished only by India and Africa, and the province of Oman deals with both. If we read *horns* of ivory, with our English Bible, they are the *tusks* resembling horns. If horns and ivory, with archbishop Newcombe, the horns from the isles may be tortoise-shell, peculiar to the isles of India; and ebony, if Virgil be good authority, is found in India and nowhere else.

Sola India nigrum,
Fert Ebenum. Georg. ii. 117. Newcombe.

It is evident, therefore, that we are here first introduced to Oriental commerce, and from this verse to the 25th, every article specified is Oriental, and every place mentioned is to the east of Tyre, or connected with the trade eastward. To those who have a curiosity on this subject, this is the most remarkable singularity of the chapter, and the establishment of the fact will be self-evident. The Chaldee renders horns by *cornibus caprearum*, and adds *pavones*, from the general accounts of the voyage to Ophir, but neither of these additions is justified by the text.

V. 16. Syria was the purchaser of the manufactures of Tyre; and the Syrians brought in return, emeralds, purple, em-

broidered work, fine linen, coral, and agate. Syria, in the original, is Aram or Aramêa; and Aram, in scripture, is sometimes Mesopotamia, sometimes Damascus[39], and likewise the country about Libanus, and the Orontes. Emeralds, fine linen[40], coral, and agate[41], are doubtless from the East; but as to the appropriation of these names specifically to different precious stones, it is quite indeterminate. Fine linen, and embroidered or variegated work, may be the cottons or muslins from India, but is too general a term to be depended on. Still, upon the whole, we may imagine, that all these are articles brought by land from the Gulph of Persia, through Mesopotámia or Damascus, in exchange for the manufactures of Tyre. Purple and fine linen are frequently united in the language of Scripture, and the usual interpretation is, fine linen of a purple colour; of this, though Michaelis says purple would not be brought to Tyre, but exported from it, there might be an importation (see Newcombe in loco) from India through this channel.

V. 17. Judah and Israel brought to Tyre wheat of minnith[42], or fine wheat (Vulg. Sept. Chaldee), and pannag[43], perhaps

[39] Aram-Damasek is Damascus, the proper capital of Syria.

[40] בוּץ Butz, Byssus, every where rendered fine linen, is supposed every where to be cotton.

[41] Agates are the peculiar production of Guzerat and Cambay. These countries were probably the source of all that reached Europe, by the route of the Red Sea. The agates so much valued in China, are brought out of Tartary, from Cashgar, Coten, &c.

[42] Minnith occurs in no other passage. Minni is used for Ar-menia, but can have no application here: it is supposed by some to be a proper name, but all proof is wanting.

[43] Phannag, opobalsamum Drusius apud Criticos sacros in loco. Panicum not known in Ezekiel's time, according to Grotius. The Critici Sacri have not been neglected in this inquiry, but they have all been gleaned by the moderns. The introduction of millet or doura in the East might well be as ancient as that of wheat or barley.

panicum, millet or doura, with honey, oil, and balsam. There is little fluctuation in the versions; and though pannag may be dubious, the other articles are the natural produce of Judah and Israel; and balsam is from Jericho, where the plant which produces it is supposed to be native.

V. 18. Damascus received the richest manufactures of Tyre, in exchange for wine of Helbon, and white wool, that is, wool in the fleece or unwrought. If Tyre bought wool in the fleece, and manufactured it, it is the same policy as Flanders adopted formerly in regard to the wool of England. The wine of Helbon is the Chalybon of the Greeks; the kings of Persia drank no other. (Newcombe from Strabo.) Syrian wine is still celebrated, and Laodicêan wine is an article of commerce in the Periplûs. The Eastern name of Aleppo is still Haleb; and Haleb, Halebon, or Chalybon, are only varied[44] by different aspirates or Greek terminations. The river Chalus, which Xenophon mentions in the expedition of the ten thousand[45], must be near the present Aleppo, or the very stream which at this day supplies that city with water. Damascus lies upon the route from Aleppo to Tyre; and to Aleppo the distance is about double that to Tyre.

V. 19. Dan and Javan, *going to and fro*, brought iron[46], and cassia, and calamus: the two last articles are evidently Oriental,

[44] A much greater variation appears in the Institutes of Timour, p. 145. where it is written Hullub, either Persick or Toorki; in either of which languages *a* is mutable into *u*, and (I conclude) *e* also, for Emessa is written Humsau.

Mulluteah = Malatia.

Dummisk = Damascus.

[45] See Cyri Exp. p. 254. Leuncl. See also Russel's Aleppo, where it seems the river Koick, chap. i.; and d'Anville's Map of the Tigris and Euphrates.

[46] Bright or wrought iron, in the original.

and Indian iron is likewise a part of the Eastern invoice in the Periplûs. We are therefore to look for this Javan, not in Greece, as before, but in Arabia, and to point out the distinction between the two Javans. The adjunct of the name, rendered in our English Bible *going to and fro*[47], is in the original Me-Uzal; and Uzal is explained by Gen. x. 27. where Uzal is the son of Joktan, joined with Hazarmaveth (Hadramaut), Sheba, Ophir, and Havilah; all which we know to be in Arabia, and consequently Javan, Me-Uzal, is so likewise. It is unwillingly that I drop the sense of *going to and fro*, because it expresses the practice of a caravan; but the retaining Uzal as a proper name, is justified by the Vulgate[48] and Sept. and approved by Newcombe, and Michaelis, who adds, from Golius, Azal nomen Sanaæ[49] quæ metropolis Arabiæ felicis. Michaelis supposes Dan to be Vadan, and a city of Arabia; but of Vadan[50] there are no traces in Gen. x.; if it is Dan, one of the tribes of Israel, his situation is between the Philistines and Joppa, placed very commodiously for receiving the caravans from Arabia in that age, which came to Rhinocolûra in a later; and equally convenient for embarking at Joppa the commodities brought by the caravans to be conveyed to Tyre. Be this as it may, the traffic is undoubtedly Arabian, and from the southern[51] coast; for (קִדָּה) khiddah, is cassia, the cassia lignea of the ancients, from (קד) khadh[52], to cut or divide lengthways,

[47] From אָזַל azal, to go.

[48] Mozel, vulg. Moozil, sept. Turmatim, Chald.

[49] Great Oriental authority is in favour of this.

[50] וָדָן may be *Vadan*, or *and Dan*.

[51] Hazarmaveth, Havilah, Ophir, and Sheba, are all on the southern coast. Havilah is supposed to be Chaulonitis in Oman; so David is Daoud, in Arabic.

[52] See Parkhurst in קד. Khadh.

in contradistinction to kasia fistula[53], the pipe cinnamon, which we now prefer. The (קָנֶה) khaneh likewise, or reed, if it be the calamus aromaticus, is of Indian growth. There can be no doubt therefore remaining, but that this verse fully establishes the intercourse of Tyre with India, through the intervention of Arabia; and no doubt that the Arabians went to India, or ships of India came to Arabia. This circumstance consequently must have taken place previous to the siege of Tyre, at latest[54] 560 years before Christ; and this passage is therefore the most ancient record of the trade between India and Arabia, which can be called HISTORICAL; for though spices are mentioned frequently, that term is not decisive, as all the gums and odours of Arabia are comprehended under that name. Cinnamon, kasia, and calamus, alone prove an Indian origin; and notwithstanding these are noticed by Moses, David, and Solomon, the conveyance of them by caravans from the southern coast of Arabia is no where specified, till we arrive at this passage in Ezekiel.

V. 20. Dedan imported precious clothes for chariots. Dedan is introduced before (v. 15.): it may be the same country again, that is, Oman. But in this verse there is nothing to express whether these clothes are a manufacture, or an import from countries farther to the east.

V. 21. Arabia, and the princes of Kedar, purchased the fabrics of Tyre, and brought in return, lambs, rams, and goats. By the princes of Kedar may be understood, the sheiks of the tribes of the Sahara or Desert: they lived in tents; and these

[53] See Parkhurst in voce, and the catalogue in the present work, under kasia.

[54] Coeval with Pisistratus, in Greece.

tents were black, made of camels' or goats' hair, perhaps, as they still are. Kedar signifies black, and Bochart concludes from this, that they were Arabs burnt by the sun; but that it refers to the tents is evident from Canticles, i. 5. I am *black*, but comely[55] as the tents of Kedar. These, therefore, are the Arabs of Hedjaz; they have no fixed habitation, but wander throughout the Sahara[56]; and their only wealth, besides what they obtain by robbery, consists in their flocks and herds. The produce of these they brought to exchange for the manufactures of Tyre.

V. 22. The merchants of Sheba and Raamah brought all kinds of the finest odours, precious stones and gold. Between Sheba (with shin) and Seba (with samech) there appears a distinction; for Sheba is a descendant of Shem, and Seba of Ham, Gen. x. Seba is, by some, taken exclusively for Sabêa, but both are in Arabia. The mistake, however, of one for the other, is natural, as there is a Sheba[57] also, great grandson of Ham. But mentioned as Sheba is in this passage with Raamah, and connected as it is with Dedan (v. 20.), we may conclude that the great grandson of Ham is meant, the son of Raamah, who is son of Cush. Cush, likewise, is much more properly attributed to Arabia than Ethiopia, though frequently rendered Ethiopia in our English Bible. If this may be esteemed a clue to guide us, we may place this Sheba, with Raamah[58] (Rhegma) and Dedan (Daden), towards the south-east angle of Arabia,

[55] See the Song of Maisuna, wife of Moawiah, in Abilfeda, Reiske, p. 116. which presents a true picture of the manners of the Arabs in the Desert.

[56] Whence afterwards they were called Saraceni.

[57] Compare Gen. x. 7. with the same chap. 28.

[58] Raamah is Rema in the Vulgate, and Ragma in the Sept.; both advancing a step towards the Rhegma of Ptolemy, occasioned by the ע gnain in רַעְמָה Rhaʼyema.

that is, in Oman; where spices, drugs, odours, gold, and precious stones, might readily be conceived, partly to be the native produce of the province, and partly imported from India. Of precious stones there can be little doubt; and that gold should be brought from India, is a circumstance in conformity with the Periplûs; for if the merchant carried silver to the Indian market, he had a considerable profit by exchanging it for gold.

V. 23, 24. Haran, Canneh, Eden, with the merchants of Sheba, Ashur, and Chilmad, traded in blue clothes, broidered work, or work of various colours—in chests of rich apparel, made of cedar and bound with cords.

That this expresses generally the trade with Mesopotamia and Assyria there can be little question; but Sheba mentioned again with these places, causes great obscurity. It may be too much to say, that these articles came up the Gulph of Persia, from Sheba or Oman to Babylonia and Mesopotámia, and thence by caravans to Tyre; but the chests of cedar bound with cords seem to imply great caution adopted for the preservation of the clothes, which were the costly manufacture of Babylonia, if not of India; and this caution seems more necessary for a conveyance over land, not only to prevent injury to the goods, but robbery likewise.

But Michaelis, as I learn from Archbp. Newcombe, goes counter to this whole supposition. With him, Haran is Haran-al-carin in Arabia; Canneh is the Kanè of Hadramaut; Eden is Aden in Sabêa, or Yemen; Sheba is a different place from Sheba in the verse preceding, and Chilmad is left undetermined.

But to me it appears, that in the preceding verses we have gone round the whole coast of Arabia, from west to east—from Hedjaz to Sabêa, Hadramaut, and Oman; and that we are now brought up the Gulph of Persia to the Euphrátes and Tigris—to Babylonia, Mesopotámia, and Assyria; making thus a circle of that vast peninsula, and comprehending all the countries connected with Tyre to the east. Against such authority as Michaelis, I must not stand on my defence with my own forces, but call in auxiliaries, who have as high a claim to consideration as Michaelis himself.

The single name of Asshur, enumerated with the other places in this passage, is sufficient to convince us that they are not in Arabia, but Assyria[59]; for Asshur is the son of Shem Gen. x. 21.), joined with Elam[60], Elymais, or Persia, and Aram, Aramêa, or Syria; and the invariable usage of Asshur for Assyria, does not admit of altering its application in this single passage. Haran and Eden are mentioned in conjunction (2 Kings, xix. 12. Bochart), and Haran, written Hharan or Charan in the original, is Charræ near Edessa[61], celebrated for the defeat of Crassus in later times, and more anciently for the residence of Abraham (Gen. xi. 31.), when he left Ur of the

[59] Grotius supports this.

[60] Elymais is the original seat of the Persians in the mountains of Loristan, before they extended themselves in Persis and Susiana. Xenophon describes them in the Cyropædia, as originally a nation of mountaineers. Elymáis, or Elam, extended its name with their conquests. The same mountains were possessed by the Cossæi in later times, and the Persians are sometimes called Kussii or Kissii by the Greeks.

[61] Edessa was a great mart for Oriental traffick, as early as the decline of the Syrian dynasty of the Seleucidæ: it continued so till the time of the Mahomedan irruption, and in the age of the Crusades became a Christian principality. As the route of the caravans varied, it sometimes flourished like another Palmy'ra, but never so rich or powerful as that Queen of the Desert. See Bayer's History of this city.

Chaldeans, near the Tigris, in his progress towards the land of Canaan. (Bochart, d'Anville.) Eden, Adana, and Aden, is a name found indeed in Arabia and in other places, and its signification might readily be the cause of this; for the Garden of Eden is the Garden of Delight, and various places, possessed of a desirable situation, might assume this distinction; but joined with Haran, as it is here, and in the second book of Kings, it must be in Assyria, and no where else; for in the latter passage it is put into the mouth of Rabshekah, and Rabshekah was an Assyrian.

Canneh likewise is read Calneh by Grotius, Houbigant, and Bochart, (mentioned Gen. x. 10. Isaiah, x. 9. and Amos, vi. 2.) Michaelis himself acknowledges that the Chaldee interprets it of Nisibis in Mesopotámia, as others assume it for Ctêsiphon. But without assigning it to a particular city, it is sufficient for the present purpose that it is in Assyria. The proof of this is express Gen. x. 10.)—"Calneh, in the land of Shinar: out of "that land went forth Ashur, and built Nineveh." If therefore Canneh be Calneh, this is conclusive; if it be not, this is the single passage of scripture in which it is mentioned, and it must be determined by the context. In this predicament stands Chilmad[62] likewise: it is noticed here only; and if we have ascertained Ashur, Charan, and Eden[63], to be in Mesopotamia, in that country must both Canneh and Chilmad be placed.

[62] Chilmad, Media. Grotius, or Gaala in Media. Gaala-Media, Chil-mad, but very dubious.

[63] Eden denotes a particular country or district. Gen. ii. 8. "God planted a garden "eastward in Eden." And Eden, by the mention of Tigris and Euphrates, v. 14. is universally assigned to Mesopotamia. See Bochart, Dissertat. de Paradiso terrestri, p. 9. & Hardouin, Plin. tom. i.

In regard to Sheba there still remains a doubt; for though there are three Shebas or Sebas in Genesis x. we cannot assign any one of them specifically to Assyria[64]. I have offered a conjecture, that this Sheba may be in Arabia, on the Gulph of Persia, but it is mere conjecture; and if it be not admitted, this also, though now undiscoverable, must be assigned to Assyria with the others. But I apprehend that Sheba and Seba are in every other passage of the Scriptures applied to Arabia.

THIS Commentary, tedious as it must necessarily appear in some respects, will, I trust, be acceptable to every reader of curiosity. I have little merit but that of collecting, under one point of view, what is to be searched for in the detached passages of other authors. This might have been done by any one who had equal industry, or an equal desire of elucidating the commerce of the ancients; but a regular detail was still wanting, and a general appropriation of the names was requisite to complete the discussion.

In the prosecution of this inquiry, I have felt much interest in tracing the channels which commerce opened for itself, after the Tyrians had no longer access to the Red Sea, or the means of making the voyage to Ophir in their own ships; and I think it appears evident that they had a communication by land with all the three sides of Arabia, as well as with the countries

[64] Eustathius ad Dionysium, 1069. Σάβαι ἦσαν μὲν Ἀραβικοὶ . . . ἔνεγνται δὲ καὶ ὧδε Περσικοί.

farther east, through the intervention of Arabia, of Assyria, and Babylonia. That the commodities of the East will bear a long and expensive land-carriage, we may be assured by the caravans which traversed the whole continent of Asia, from China to the Mediterranean, in former ages; and those which pass between the same empire and Russia at the present day. That the Tyrians should be employed in the same concern, is natural, from our knowledge of their commercial spirit, and from the profits of their monopoly in regard to Europe. Whether the knowledge of these gains, or the thirst of conquest, induced Nebuchadnezzar to destroy this city, may be questioned; but I have already shewn that he had improved the navigation of the Tigris, and established a port on the Gulph of Persia. In this there could be no object but a communication with the East; and when the Babylonian empire sunk under the power of Persia, Tyre rose again out of its ruins, because the Persians were neither navigators nor merchants, and because the fleets of Tyre were essential to the prosecution of those conquests which the Persians meditated towards the West.

The destruction of Tyre is foretold by Isaiah (xxiii.) and Jeremiah (xxv. 22. xlvii. 4.), as well as by Ezekiel, who employs three chapters upon the subject, and enters far more minutely into particulars. In the twenty-eighth chapter he declares, the pride of this devoted city, whose sovereign boasted, "I am a God;" "I sit in the seat of God, in the "midst of the seas;" "I am God" (v. 9.); and whose luxury made every precious stone his covering — the sardius [65],

[65] See Lamy, Introduct. à l'Ecriture, c. iv. p. 425. who has all that can well be said on the subject; but the Hebrew names of jewels are chiefly derived from verbs expressing radi-

topaz[66], ruby, diamond, beryl, onyx, jasper, sapphire, emerald, and carbuncle, set in gold (v. 13.). The various rendering of these in different translations, will prove indeed the little dependance there may be on our knowledge of the Hebrew terms; but will still leave an impression, that they are imported from countries farther eastward, whence most of the precious stones still come, and will evince not only the value, but the direction of the commerce.

With these observations I close the review of this extraordinary prophecy relating to Tyre and its commerce; and if the Periplûs affords us the means of tracing the countries it describes, by the specification of their native produce; equally appropriate, or more abundantly so, are the articles contained in the enumeration of the Prophet; the latter part of which coincides most essentially with the detail in the Periplûs. and establishes the consistency and veracity of both.

To the public I now commit the result of my inquiries. In return for the labour of many years, the only reward I am anxious to obtain is, the approbation of the learned, the in-

ance, and are therefore indeterminate; but *adem* is red, and may be the ruby; *jashphè* has the sound of jasper, and *sapphir* is self evident. I wish יַהֲלֹם *iahalom*, which Parkhurst derives from *halam*, to strike, could be ascertained for the diamond; and might we not search the root הל *hal*, to move briskly, to irradiate, shine, or glisten. Halil, he adds, denotes the Morning Star, from its vivid splendour.

[66] Tarshish is one of the jewels in the breastplate of the high-priest, which (compared with John, Rev.) Lamy concludes to be the chrysolite or topaz; but he adds, that some suppose it the aigue marine, or stone that is the colour of sea-water, and that in this sense Tarshish the jewel is applied to Tarshish the sea, p. 431. I submit this to the judgment of those who are better acquainted with Hebrew literature; but if the interpretation can be justified, it reconciles every passage in scripture, from the 39th chapter of Exodus to the last mention of the word which occurs: and the adoption of it for the proper name of a man, Gen. x. 4. is not more extraordinary than the appellation of Margaret given to a woman. But whether the son of Javan received the name of Tarshish from the jewel or the sea is indifferent.

genuous, and all others who by experience are qualified to form a judgment upon the various subjects of discussion: if I fail in this object of my ambition, I must console myself with the reflection, that my own happiness has been increased by attention to a favourite pursuit, by the acquisition of knowledge, and by the gratification of a curiosity almost coetaneous with my existence.

PART II.

DISSERTATION III.

ON THE NAVIGATION AND COMPASS OF THE CHINESE,

BY

THE RIGHT HON. THE EARL OF MACARTNEY.

IN my Journal of 11th August 1793, I gave some account of the junkas and shipping employed by the Chinese, and expressed my astonishment at their obstinacy in not imitating the ingenuity and dexterity of Europeans, in the built and manœuvre of their vessels, after having had such striking examples before their eyes for these 250 years past: but I must now in a good measure retract my censure upon this point; as, from what I have since observed in the course of my several voyages on the rivers and canals of China. I confess that I believe the yachts, and other craft usually employed upon them for the conveyance of passengers and merchandize, and the Chinese boatmen's manner of conducting and managing them, are perfectly well calculated for the purposes intended, and probably superior to any other that we, in our vanity, might advise them to adopt.

With regard to vessels of a different kind for more distant voyages, to Batavia, Manilla, Japan, or Cochin-china, I am informed that the Chinese of Canton, who have had frequent

opportunities of seeing our ships there, are by no means insensible of the advantages they possess over their own; and that a principal merchant there, some time since, had ordered a large vessel to be constructed according to an English model; but the Hou-pou, being apprized of it, not only forced him to relinquish his project, but made him pay a considerable fine for his delinquency, in presuming to depart from the ancient established modes of the empire, which, according to his notions, must be wiser and better than those of the barbarous nations, which come from Europe to trade here. It is indeed, as I have before remarked, the prevailing system of the Tartar government, to impress the people with an idea of their own sufficiency, and to undervalue in their eyes, as much as possible, the superior invention of foreign nations; but their vigilance in this respect, and the pains they take for the purpose, evidently betray the conscious fears and jealousy they entertain of their subjects' taste for novelty, and their sagacity in discovering, and wishing to adopt, the various articles of European ingenuity for use, convenience, and luxury, in preference to their own clumsy, old-fashioned contrivances[1]. The government also probably apprehended danger from our teaching their subjects things of which they are now ignorant, but which they would be willing enough to learn. No precaution, however, can stand before necessity; whatever they want from us they must have, and every day they will want more, and elude all means of prevention in order to procure them.

[1] I am assured that several smart young Chinese of Canton are in the habit of wearing breeches and stockings, à l'Angloise, in their own houses, and when they come abroad, cover them over with their usual Chinese accoutrements.

Cotton, opium, watches, and broad cloth, and tin, they cannot do without; and I have little doubt, that in a short time we shall have almost a monopoly of those supplies to them.

But to return from this digression to the subject of Chinese Navigation.—It is a very singular circumstance, that though the Chinese appear to be so ignorant of that art, and have neither charts[2] of their coasts or seas to direct them, nor fore-staff, quadrant, or other instrument for taking the sun's altitude, yet they have for many years past been acquainted with the use of the Mariner's Compass[3]; they even pretend that it was known to them before[4] the time of Confucius. Be that as it may, the best writers agree that it was not known in Europe till the thirteenth century, nor brought into general use till the latter end of the fifteenth; but whether communicated by Marco Polo on his return from China, or by some other adventurer, remains undecided. The plan of it, according to its division into thirty-two points, seems to indicate it rather an intended European improvement upon something already discovered, than to be an original invention. The Chinese Compass being divided only into twenty-four points, it was easy to divide eight more; and yet, even with this im-

[2] Barthema expressly mentions charts aboard a Chinese vessel. If they have now no fore-staff, quadrant, or instrument for taking the sun's altitude, they are far behind the navigators of the Indian Ocean in the 15th century.

[3] Ting-nan-chin, or the South-deciding Needle.

[4] Maurice is willing to attribute the knowledge of the compass to the ante-diluvians, communicated to the world by Noah and his sons; but with speculations of this sort the present work is not concerned.

See Maurice. Hist. of Hindostan, vol. i. p. 436. He refers to Hyde. Rel. Persarum, p. 189. but there, in the edition 1700, I do not find it. See Clark's Introduction to the History of Discovery, p. 8.

provement, the European Compass in one respect labours under one disadvantage when compared with the Chinese one; for in the latter the calculations are much easier, each point answering to fifteen degrees, without odd minutes.

Whoever it was that originally introduced the Mariner's Compass, as now used, of thirty-two points, could not have been extensively versed in science; for, long before the discovery of the magnetic needle, philosophers of all nations had agreed to divide the circle into 360 equal parts or degrees, a degree into 60 minutes, a minute into 60 seconds, &c. &c. The reason, I presume, of the general adoption and continuance of these numbers, is the convenience of their being divisible into integral parts by so many different numbers. The points of our mariner's compass, however, happen not to be among these numbers, for 360 divided by 32, gives $11\frac{1}{4}$ degrees, so that, except the four cardinal points and their four bisecting points, all the others converted into degrees, will be involved with fractions, a circumstance of great inconvenience, although thought immaterial by seamen, who have tables for every minute of a degree ready calculated to their hands. Now, it is submitted, whether[5] the Chinese, without any pretensions to science, have not fallen upon a more convenient division of the card of their compass, than the Europeans have

[5] See Niebuhr Voyage, vol. ii. p. 169. Amst. ed.

At Cairo it is called El Magnatis, and its various names are

Deir	—	Arabick.
Beit el Ibbre	—	Arabick.
Kable Nameh	—	Gulph of Persia.
Rach Nama	—	Gulph of Persia.

The Indian compass has 32 points, its name is Hokke; the Siamese has 8 points; the Malay has 8 names, and 32 points.

If all these with 32 points ought to be referred to an European origin, the Chinese instrument with 48 does seem to admit the right of the Chinese to the invention, as Lord Macartney supposes.

adopted, with all their pretensions to science. It is quartered by the four cardinal points, in the same manner as ours, and each of these is subdivided into six points, making 24 points in the whole card, so that every point contains 15 degrees, or the fifteenth part of 360.

After all, perhaps a division of the card into 36 points would be found more advantageous than any other, for then every point would be equal to ten degrees; half a point equal to five degrees, &c. &c. and so on.

Straits of Gibraltar
Ceuta
PART of the MEDITERRANEAN SEA
Malva R.
NUMIDIA
Tremezen
CANARIA
Morocco
Fezza
GETULIA
Barbaria
Cyrene
Alexandria
Rosetta
Damietta
PALESTINE
Mt. ATLAS
VII Mountains of the Arab: Geographers
Cape Verde
Palms Island
MAURITANIA
This country is full of cities in the original
Cairo
The Authors knowledge could extend no farther than Rio Grande in Lat 11 N.
Senegal
Gambia
Mar. R.
Golden Gulph
GARAMANTIA
Golden Gulph
Here the Author places a Statue which intimates that there is no passing farther but he does not believe its exsistence
NIGER
Cataracts
SYENE
GIOZ
THEBAIDE
ARABIA
SEA
FUNDAN
NUBA
ETHIOPIA
DOLCARMIN
The Nile passes thro this Mountain
Iron Gate
The March R. of Bruce is lost in a sand & rises again, the March joins the Tacaze or Eastern Source of the Nile
Aden
DAFUR
Begamidre
Begemder
These three Lakes are found also in Al Edrissi
Mt. SALGU
WESTERN ETHIOPIA
Gojam of Bruce
ABBASIA
Dembea of Bruce
Zeila
SOMAULI
Here the Author mentions a report of a traveller whom he had seen at Venice & who said he had been carried in an Indian Ship 2000 miles to the W.S.W. of Cape Soffala the Kings of Portugal also had in 1459 sent their Caravels 2000 miles down the Coast of Africa towards the South
HAMARA
ADEL
Sofrala
Benicheleh
which signifies the Province of Dogs because the natives have the heads of Dogs
City of PRESTER JOHN & the Vicar of the Patriarch
Pr. John has 120 Kings under him, & with different languages
Sandy Ethiopia a Desert
This canal is almost concealed by weeds & mountains It is most probably noticed as forming an Island from the Island Xenzibar of Marco Polo 2000 miles in circumference what from the Arabs who call many continents Islands
Megiddo
Magadosso
DIAB thrice repeated
Xenzibar
GALLA R.
SOUTHERN ETHIOPIA
A Ship of India carried by stress of weather 800 miles to the W.S.W. of Cape Soffala
DIAB
Soffala
Diab is the name of this Island
Macdasin
CAPE DIAB A Ship of India carried by stress of weather 800 Miles to the W.S.W of this Cape.
Chelue
Quiloa
Maalbafa
Brava
MAHAL
Madagascar?
Christians here with an archbishop Soris
Pirates. Amber. All these are all dependencies of Malabar apparently but the last is most probably Madagascar

AFRICA

From the Planisphere *of* Fra MAURO *1459 preserved in the* library *of* San Michael di Murano *at* Venice containing *the report of a* Ship *from* India *having* passed *the* extreme point South *2000 miles towards the* West & South West *in 1420*

N.B

Diaz *passed the* Cape *of* Good Hope *in 1486*

Gama *in 1497 who first reached* India.

The dotted lines of Rivers are green in the original, the lines not dotted are blue. the green are perhaps the conjectures of the Author.

Names *introduced but not mentioned by the Author have an Asterisk* *

The original contains a multiplicity of names not inserted in this copy & not necessary for understanding the Circumnavigation.

Published according to Act of Parliament by W. Vincent 9th June 1806.

To front Dissertation IV Periplus part II

PART II.

DISSERTATION IV.

ON THE

MAP OF FRA MAURO,

IN THE

MONASTERY OF ST. MICHAEL DI MURANO, AT VENICE,

So far as it relates to the Circumnavigation of Africa.

THE desire of obtaining a faithful copy of this celebrated Planisphere originated from a variety of causes, among which the principal were these:—

I. First, That an opportunity would be afforded of examining whether this were the map described by Ramusio[1], and by him considered as appropriate to the Travels of Marco Polo.

II. Secondly, To establish the authenticity of the map itself, and its existence antecedent to the voyages of Diaz and Gama.

III. And thirdly, to ascertain the extent of the information it contained relative to the termination of Africa in the south.

But if the attainment of the object was desirable, the precarious state of Venice itself, and the probable injury the map might have suffered during a lapse of three hundred and fifty years, urged the necessity of dispatch as indispensable.

[1] In the advertisement prefixed to the Travels of Marco Polo, p. 17.

Founded on these motives, an application was made in the year 1804 to Lord Hobart, then Secretary of State for the foreign department, who, with the liberality congenial to his disposition, and the alacrity of a protector of the sciences, directed the necessary inquiries to be made without delay.

Mr. Watson, who had resided at Venice forty years, and who was the English Consul in that city, was consulted. That gentleman was well acquainted with the map, and had frequently visited it as an object of curiosity; he offered the services of his nephew, Mr. Frazer, a miniature painter by profession, to undertake the work, and stated that the expence of a fac simile copy could not be less than an hundred and fifty pounds [2].

No sooner was this intelligence received, than a subscription was opened for the accomplishment of the design, and in a few days filled, by the contributions of the East India Company, Earl Spencer, the Earl of Macartney, Lord Hobart (now Earl of Buchinghamshire), the Bishop of Durham, Mr. Strahan, Printer to His Majesty, and the Editor of the Periplûs.

The artist was directed to proceed immediately, and in nine months completed his copy of the Planisphere, which, with all its errors, is a most beautiful specimen of geography, and exhibits at one view all that was known on this subject in the fifteenth century.

The copy, when finished, was transmitted to the English Ambassador at Vienna, in whose hotel it remained for many months, being too bulky for an ordinary conveyance, and too

[2] The expence of conveyance, fitting up, and further remuneration of the artist, amounts to more than 200*l.*

long forgotten from the pressure of business far more important; but at Vienna it was found, after escaping the ravages of the French army, by the artist who had executed it, and who, by a coincidence of singular circumstances, had the good fortune to bring it himself to the hands of the subscribers.

The connexion of this work with the plan of the editor, arises naturally from the construction of his Commentaries on the Voyage of Nearchus and the Periplûs of the Erythrean Sea; in these two works he undertook not only to elucidate the narrative, but to embrace all the leading causes which contributed to the better information of the moderns;—in short, to trace the PROGRESS OF DISCOVERY from the commencement of it by Nearchus, to its completion by the voyage of Gama.

After a brief enumeration of these particulars we may proceed to consider:

I. First, whether this was the map noticed by Ramusio, and supposed by him to be drawn up for the elucidation of the Travels of Marco Polo.

Upon the commencement of this inquiry it is necessary to have it understood, that the Planisphere of Fra Mauro was never intended by the author for the purpose of tracing the route of his countryman: it contains indeed many particulars deduced from his Memoir, but without any acknowledgement of the obligation[3]. It is a general map of the known world, formed upon the Arabian principle, and its outline is represented by the sketch I have given from Al Edrissi, in the Ap-

[3] The Memoir of Father Mirtarelli, Abbot of St. Michael di Murato, in 1779, asserts this; and upon a scrupulous examination of the map, I find no reason to contradict this assertion.

pendix to the first part of the Periplûs; that is, a circle surrounded by a circumambient ocean; or if considered as a hemisphere, it is the egg[4] floating in a bason of water.

I ventured to predict this to some of my subscribers before its arrival, and to shew that consequently, if the three Continents were encompassed by this mare tenebrosum of the Arabs, Africa must have a termination on the south, as well as Lapland on the north.

That the Atlantic[5] communicated with the Indian ocean was a persuasion universally admitted from the earliest ages by all the geographers, except Ptolemy; he indeed carried round his Southern Continent from the extremity of Africa till it joined the empire of China: the Arabians, who followed Ptolemy, did not copy him in this respect, but the termination of Africa in Al Edrissi is protracted eastward till it ends under the same meridian as China; the map of Marin Sanuto[6] in 1321, which is likewise from an Arabian original, has the same inclination, but not to the same excess; and the planisphere of Fra Mauro has a similar turn to the east, but confined within still narrower bounds. The additional information which Fra Mauro gives, will be considered under the third head.

But let us now advert to the report of Ramusio relative to the map in the church of St. Michael di Murano, given at p. 229.

[4] It is not by this intended to assert, that Fra Mauro designed it for this half egg of the Arabs; he knew well that the earth was a sphere.

[5] It is on this foundation that the Phênician voyage is recorded by Heródotus, and the testimony of Aristotle is in conformity. Ἡ μὲν Ἐρυθρὰ φάινεται κατὰ μικρὸν (sensim) κοινωνοῦσα πρὸς τὴν ἔξω τῆλωι θάλασσαν. Arist. ii. Meteor. i. cited by Wesselling ad Diodor. p. 23. Skylax, Pliny, and Strabo bear the same testimony.

[6] The account of this very curious map will be found in the Periplûs, part. ii. p. 359. I have caused a sketch of it to be engraved and inserted in this Dissertation.

of the Periplûs, part the first; where it will be seen, that it *does not* correspond with the planisphere now under consideration in regard to several particulars; for it mentions, that the longitudes and latitudes were marked on it,—that it was adapted to, or meant to represent, the travels of Marco Polo,—that it was reformed from a more ancient map brought home by Marco Polo himself.—On the other hand, it *does* correspond, in noticing that it was drawn up by a lay brother [7],—that it hung [8] in the church,—that it was visited as a curious work by all strangers who came to Venice; and finally, that the characteristic feature of it was, that it exhibited a southern termination of Africa, and the junction of the Atlantic with the Indian ocean.

Now, comparing this opposition of circumstances, it seems as if we must conclude, that unless there were two planispheres in the church,—both drawn up by a lay brother,—both visited by strangers,—both containing a termination of Africa;—this must be the map that Ramusio has recorded, and that the erroneous side of the account must be attributed to the neglect of the reporter. This is a harsh judgment, for Ramusio is the most faithful, correct, and accurate of collectors; he lived at Venice himself, and as he could not want opportunity of ascertaining the fact, neither can we well attribute to him the want of curiosity or investigation. But it is very extraordinary that Ramusio [9], who lived within fifty years of Fra Mauro, should never have mentioned him by name, but only noticed the

[7] Converso, in the Italian, means a Fra, or Friar professed, but not ordained; the ordained Priests are Padres, or Fathers, in the order of Calmes.

[8] By a testimonial on the map itself, it appears that it was removed from the church to the hall, and from the hall to the library, in 1655, when the library was repaired and beautified.

[9] He died in 1557, at 72 years of age.

author as a lay brother of the order of Câlmes; notwithstanding this, Mauro was so celebrated as a cosmographer in his day as to have a medal struck in honour of him; and added to this, the planisphere he has left us, is consecrated to the honour of the Republic. This neglect cannot be imputed to jealousy, for his rival was no more; neither is it more remarkable than that Fra Mauro, who has copied so amply from Marco Polo, should never mention his name. Considering, however, farther inquiry into these particulars as unnecessary, I cannot suppress my own opinion, which is, that this was the map intended by Ramusio, but that his information is not correct. And in addition to my own testimony, I may subjoin, that in a memoir of this map, drawn up by Father Jo. Benet Mirtarelli, Abbot of St. Michael di Murano in 1779, and communicated to Lord Hobart by Mr. Stuart, it is throughout admitted that this planisphere, and no other, is the one designated by Ramusio, and that his account of it is erroneous.

It is much to be regretted that we have no genuine map that can be traced to Marco Polo himself,—for that which was in the Doge's palace, (a copy of which I received from Lord Macartney,) is by internal evidence later than 1550; it is not formed on Arabian principles, it has the peninsula of India, and that of Malacca, in conformity to the Portuguese discoveries; it has the Eastern Islands and the Moluccas almost correct; and the only trace of its derivation from an ancient source, or an age prior to Gama, is, that the first country east of China is Spain; proving, in this one instance at least, that it was copied from some authority previous to the discovery of America.

II. Under the second head we are to inquire, whether the work we have is genuine? whether it were really executed by Fra Mauro? and whether it existed previous to the voyage of Gama?

The proof of this is very short, for the age of Fra Mauro is perfectly ascertained in the history of the monastery; his excellence as a cosmographer is fully established by the medal struck in honour of him; the inscription on which is,—Frater Maurus Monachus Camaldunensis Sancti Michaelis de Muriano Cosmographus incomparabilis: the date on the planisphere is 1459, and the internal evidence in the work itself is in complete harmony with the date. Added to this, we know by the testimony of the Portuguese, that Alfonso V. or Prince Henry, who died in 1663, received a copy of this map from Venice, and deposited it in the monastery of Alcobaça, where it is still preserved [10].

It is in fact calculated for the furtherance of Prince Henry's designs; for it asserts that an Indian ship had been carried 2000 miles west beyond the extreme point of Africa, and that the Portuguese navigators had sailed 2000 miles south, from the Straits of Gibraltar; by this implying, that the junction of these two lines could not be a labour of very great difficulty, and that the prosecution of the discovery must soon lead to the attainment of the object proposed. The sums likewise paid for the copy by Alphonso V. [11] king of Portugal, and the account of expenditure is still preserved in the monastery of St. Michael;

[10] See Periplûs, Part i. p. 223.

[11] Alfonso V. began to reign in 1438, and lived till 1480. The whole of his reign therefore is prior to Diaz and Gama, and includes the age of Fra Mauro.

the whole memoir of Abbot Mirtarelli confirms this, and puts the question out of doubt.

III. This brings us to the third head, in which we are to shew what the Planisphere actually contains relative to the termination of Africa on the south.

This is in reality the prime curiosity and great merit of the work, for its defects in other respects are in perfect harmony with the ignorance of the age; nay, there are some errors which, if the author had followed Ptolemy, as he professes to do, he could not have committed. His failure in regard to India is inexcusable, for though Ptolemy might have misled him, as he has, in regard to curtailing the peninsula of India, and reducing both coasts nearly to one parallel of latitude, still Ptolemy has an Indus and a Ganges not so much distorted as to produce the enormous aberration of Fra Mauro; for he places Dehly on a stream which comes towards the coast of Malabar; he then carries an Indus into the bay of Bengal; another river running down to Ava, Pegu, and Siam; and to the eastward of this a Ganges. This is so wild an error, that it is not worth seeking for its origin. There are a variety of misconceptions in other parts, though none so extravagant as this. But not to insist on these, let us now advert to the termination of Africa, the principal object in view, when it was proposed to obtain a copy of this work, and the leading cause for introducing it to the notice of the reader.

Longitude and latitude, though the author frequently mentions, he does not apply; he fixes the centre of the *habitable* world near Bagdat, and would willingly have fixed it at Jerusalem if he could have found the means.

Asia and Europe he defines rationally, and Africa, so far as regards its coast on the Mediterranean. He traces the Nile up into Abyssinia, of which he has two heads, one towards the east, from the Arabian accounts, where several streams unite into three lakes[12]; and another western one, which *he* calls Ab-avi, as well as Bruce, which winds round, and after passing through a lake resembling Dembea, returns again to the north like that river; but both these sources partake less of the errors of Ptolemy and the Arabs than might be expected; they are not carried quite so far south[13], and on this head it is highly probable that he received his information from the missionaries and merchants who had been in Egypt, and perhaps farther inland[14]. This he professes to be the source of his intelligence, and it appears rational, from a view of his work; but then, as he knew nothing of Africa more remote than this region, he extends Abyssinia down to the south, till it is almost in contact with what *we* should call the country of the Hottentots[15].

On the eastern coast, however, of this continent, he has a different system; for having found, as we may suppose, in

[12] This is the precise fact also in the Arabian map of Al Edrissi, and Fra Mauro copies him likewise in making the stream pass through a mountain, with the cataracts, &c. &c. This source, by its relative situation, ought to be the Tacazzè, but it is remarkable that the Mareb river of Bruce, which joins the Tacazzè, actually does sink under ground and rise again.

[13] The sources of the Nile, at least Bruce's Nile, are in latitude 12° north, those of Ptolemy 12° south, and those of Al Edrissi still much farther south.

[14] Whence the author derived his knowledge of Abyssinia is dubious, unless from M. Polo. We know of no missionaries who penetrated into that country previous to the Portuguese in 1520, sixty years later than the date of the Planisphere.

[15] It is very remarkable, that his termination of Abyssinia on the south is formed by a river named Galla, which proves that the Gallas, who have been the invaders and desolaters of Abyssinia for these 300 years, even in that age had the appellation, and that their country was placed to the south. In fact, the intelligence of the author, in some particulars, is as singular, as his errors are in others.

Marco Polo, that there was a great island called Zanguebar[16], 2000 miles in circumference, he actually carries an arm of the sea between this island and the continent, in an oblique direction, commencing at Magadoxo, and issuing at the point where we should fix the Cape of Good Hope. This island (perhaps from a corruption of the Hindoo, *Dweep*[17]) he calls *Diab* three times over, and the termination of it on the south he styles Cape Diab, making it the extreme point of Africa; and adding, in *one place*, that nothing ever passed it; in *another*, that an Indian ship, in the year 1420, had been carried 2000 miles to the westward of it in the space of 40 days, and was 70 in returning.

That the island Diab was in one sense the Zanguebar of Marco Polo, is evident, for on the eastern coast of it we have Magadoxo, Zanguebar, and Sofala, in due order[18]; we have likewise, inland, a province abounding in gold, which we suppose to correspond with Monomotapa. But the last place mentioned on the east is Macdesin[19], approaching so nearly to the Madastar or Magaster of Marco Polo, as to induce a suspicion that Diab may have been confounded with Madagascar.

[16] Zanguebar is in reality a small island on the coast, in lat. 6° south, and the continent opposite either gives its name to or takes it from the island: it is this continent that M. Polo has transformed into an island again, 2000 miles in circumference, perhaps from Arabian authority, for the Arabs apply the term to many regions which are not islands.

[17] For this curious and rational conjecture I am indebted to Mr. Hastings.

[18] Quiloa, written Chelua, Brava, and Mombaza, are inserted, but not in due order; they are all below Sofala, and Sofala is apparently repeated twice.

[19] I am not without doubt respecting this Macdesin. I have sometimes suspected it may have been intended for Mosambique.

It is not meant to assert, however, that this suspicion is well founded; for Fra Mauro has an island Mahal, where he says the pirates used to rendezvous, and where there was plenty of amber; this last particular Marco Polo attributes to his Madastar [20], but the Mahal of F. Mauro is a small island, and the Madastar of M. Polo is 3000 miles in circumference, in which again it agrees better with Diab. At Diab, likewise, Fra Mauro mentions the fable of the Ruck, which M. Polo notices as existing in Madastar, and this increases the probability in favour of the conjecture that Madagascar is confounded with the continent. But, upon the whole, the narrative of M. Polo is far more consistent with truth than Fra Mauro's Planisphere; and his account of the violent current in the Mosambique channel is a most illustrious geographical verity, far surpassing the information of the age he lived in.

Let us now proceed to the specific pre-eminence of the Planisphere, in which it surpasses all the intelligence received from prior geographers. It has been observed already, that this work was composed with a view to encourage the Portuguese in the prosecution of their voyages to the south; two passages, which may be adduced from the rubrick in the map [21], will set this in the clearest light. The first is inserted at Cape Diab, the termination of Africa on the south, beyond which no navi-

[20] It is perhaps the best reason for thinking that Mahal is Madastar; for the northern cape of Madagascar is called at this day Cape Ambra.

[21] The Planisphere is so ample as to admit of much writing throughout, which may be considered as the Memoir to the Map. The letters are usually in red ink, and properly Rubrick; but the black bear the same title. I have not yet found a reason for the preference of the one or the other; perhaps variety or caprice was sufficient reason with the author.

The copyist says the hand is the same throughout.

gators passed, and where was the commencement of the Mare tenebrosum; "but here," says the author, "about the year "1420, an Indian vessel or junk, which was on her passage "across the Indian ocean to the islands of men and women [22], "was caught by a storm, and carried 2000 miles beyond Cape "Diab to the west and south-west; and when the stress of "weather subsided, was seventy days in returning to the "Cape:" he then mentions that the vast bird called the Ruck was found here, which is so strong as to carry up an elephant in its talons [23], and then to dash it to the ground, and feed upon its flesh.

This therefore the author considers as full proof that Africa was circumnavigable on the south. The second Rubrick we are to cite is inserted on the western coast of Africa, and contains the following particulars:—

"Many have thought, and many have written, that the sea "does not encompass our habitable and temperate zone [24] on "the south; but there is much evidence to support a contrary "opinion, and particularly that of the Portuguese, whom the "king of Portugal has sent on board his caravels to verify the "fact by ocular inspection. These navigators report, that "they have been round the continent more than 2000 miles to "the south-west beyond the Straits of Gibraltar..... that "every where they found the coast not dangerous, with the "soundings good, and convenient for navigation, and with

[22] These islands are called Nebila and Magla; the fable is in Marco Polo, and probably Arabian, that the men passed to the women for three months in the year, and then returned to their own island with the boys, leaving the girls behind. Nebila appears in Sanuto's map.

[23] The instance is an elephant likewise in Marco Polo.

[24] He means the habitable *world*.

" little danger from storms. Of these regions they have framed " new charts, and given new names to the rivers, bays, capes, " and ports. I have many of these drafts in my possession, " but if any one should question the evidence of those who " have actually visited these coasts, much less would he credit " those who are not navigators, but writers only on the subject, " and receive their information from others.

" I have likewise talked with a person worthy of credit, who " affirmed that he had been carried [25] in an Indian ship by " stress of weather, in a course out of the Indian ocean, for " forty days, beyond the Cape of Sofala and the Green [26] Islands, " towards the west and south-west, and that in the opinion " of the astronomer on board [27], [such as all the Indian ships " carry,] they had been hurried away for 2000 miles. And " this report is at least more credible than the assertion of " others, who mention a progress of 4000 miles [in the same " direction.] . . . . In short, without all doubt we may affirm, " that the sea encompassing this southern and south-eastern " part of the world is navigable; and that the Indian sea is " ocean, and not a lake [like the Caspian]; for this is con- " stantly asserted by all those who navigate this sea, or inhabit " these islands."

By comparing these two passages together, the natural conclusion is, that the design of the author was to encourage the Portuguese in the prosecution of their voyages to the south,

[25] Scorzo.

[26] Perhaps the Prasum of Ptolemy and the Greeks.

[27] In another Rubrick he writes expressly, that the Indian ships had no compass, but were directed by an astronomer on board, who was continually making observations. In this he seems to follow Nicola di Conti.

and to assure them of the certainty of success in getting round the continent, by asserting that this Indian ship had actually penetrated into the Atlantic. But still it is to be observed, that the two accounts are at variance: the first says, the passage was made round Cape Diab, at the termination of Africa; the second asserts that it was beyond Cape Sofala and Prasum [28], which is fifteen degrees north of that termination; and a course winding round the continent from Sofala to Cape Agulhas [29] could not be less than two-and-twenty degrees, that is, upwards of thirteen hundred geographical, or fifteen hundred British miles; if, therefore, there is no exaggeration in the account of the astronomer, this vessel might have passed five hundred miles beyond Cape Agulhas to the west. One reason more especially which may persuade us that the 2000 miles are rather to be reckoned from Sofala than Diab is, that a south and south-westerly course would actually carry them towards Cape Agulhas, whereas from Diab, such a course would have carried them 2000 miles into the open sea, leaving the continent behind them in the north-east. Another reason for reckoning from Sofala is, that it was the last place on the eastern coast to which the Indian ships traded, and if a vessel, making this port, happened to overshoot it, she might easily be hurried further south by the violent current in the Mosambique channel, which sets all round the coast to Cape Agulhas; and in the force of which, if a vessel was once caught, she might well be seventy days in returning on the same track which she had before passed in forty, when going to the south.

[28] Isole Verde.

[29] Cape Agulhas is the extreme point of Africa, almost a degree south of the Cape of Good Hope.

These reasons induce me to think that the second Rubrick is the more correct, and that the 2000 miles are to be reckoned from Sofala. I have stated the whole fact as it may be viewed in either light, and leave the determination to the judgment of the reader. In either case, if there is no exaggeration, the extreme point of Africa was really passed, and the discovery ascertained.

But whether the course of this Indian vessel be actually true or false does not enter into the consideration; the fact is possible, and even probable; and if such a report was brought to Fra Mauro, the insertion of it in his map was not only allowable, but consistent with the design of his work, composed for the King of Portugal and the encouragement of his subjects. It is reasonable to suppose that the author did not foresee that the consequence of the discovery would be a fatal stroke to the commerce of his country, otherwise we may be assured, that neither his own patriotism, or the interests of Venice, would have suffered such a communication to have been transmitted.

Let us next observe, that Fra Mauro asserts he had his information from a person of credit who actually sailed on board an Indian ship. In this there is no inconsistency, for the merchants of Venice, and other Italians who traded to Alexandria, did in several instances pass down the Red Sea, and penetrate into India. Nicola di Conti[30], in 1420, sailed in an Indian ship, and gives much the same account of Indian navigation.

[30] Nicola di Conti was a Venetian: he went by way of Damascus to Bagdat, Basra, and Ormus: he was long absent, and after his return received absolution from the Pope in 1444. I may have placed his going out to India too early, but the date of his return in 1444 comes so near the time of Fra Mauro, whose map was completed in 1459, that he might easily have consulted him. See Ramusio, tom. i. p. 338.

The date of 1420 is a remarkable coincidence, but di Conti says nothing in his own memoir of a ship being carried round the termination of Africa, otherwise I should have supposed that this curious traveller had actually been the origin of Fra Mauro's report: at present it only goes to prove that several Italians did pass into the Indian ocean, and did sail on board the ships of the natives, from some one of whom the author might have received his information.

Another observation occurs upon reading these two accounts; from the mention of the 2000 miles that this Indian ship had passed, and the 2000 miles that the Portuguese navigators had discovered from the Straits of Gibraltar, it is manifest that Fra Mauro thought that the intermediate line which would join the two courses was neither extensive or attended with great difficulty. But let us advert to the date of the Planisphere 1459, from which we may ascertain the extent of the progress of the Portuguese; for it is exactly four years before the death of Prince Henry in 1463, the limit of whose discovery we fix at Rio Grande, though Galvan informs us, that a single ship or two had run down below the equator. Rio Grande is in latitude 11° N. and the Straits of Gibraltar in lat. 36° N. The Portuguese had therefore advanced 25 degrees to the south; that is, 1500 geographical, or 1750 miles British, which, with the circuit of the coast, may well be estimated at 2000 miles. But as Cape Agulhas is in latitude nearly 35° south, the amount from 36° north to 35° south is 71 degrees, equal to 4970 British miles; so that if we reckon the 2000 miles of the Indian ship from Cape Diab, and the 2000 miles of the Portuguese from the Straits of Gibraltar, the intermediate line would be

970 miles, exclusive of the winding of the coast; or if we reckon the 2000 miles of the Indian ship as commencing from Sofala, we must add 15 degrees in a right line, or 22 degrees of coast, as the space between the discovery of the Indians and the Portuguese: that is, in one instance we must add 1050 to 970, making 2020 miles British, and in the other 1540 to 970, amounting to 2510 miles of the same description.

Different as this may seem from the estimation of Fra Mauro, and protracted as the intermediate line between the two discoveries may appear, even if this had been known in the court of Portugal, the difficulty would not have been thought too great to surmount. The Portuguese had already extended their discoveries 2000 miles, and an additional progress of 2500 would have been deemed much easier to complete, than the first 2000 they had advanced. But they did not calculate upon so ample a space; the estimation of Fra Mauro evidently diminished their apprehensions, and his error in this respect manifestly contributed to the prosecution of their designs; as the error of the ancient geographers in approximating China to Europe, produced the discovery of America by Columbus.

With these considerations we may close our account of Fra Mauro's Planisphere, so far as it regards the circumnavigation of Africa: and when we reflect that Diaz sailed from Lisbon in 1486, only twenty-seven years after the date of this Planisphere, we cannot withhold a due share of praise and admiration from a geographer, who contributed so essentially to the discovery; neither can we sufficiently commend the wisdom of Alphonso V. who joined theory to practice by the purchase of such a work; or the fortitude and perseverance of his people,

who completed for the world the greatest discovery that navigation has to boast.

The remaining parts of the Planisphere are not connected with these great designs, neither do they contribute much to elucidate the navigation of the ancients. The merchant of the Periplûs had far better conceptions of the eastern coast of Africa and the Peninsula of India than are to be found in this work of Fra Mauro; for he seems, by his own confession, to have consulted missionaries, voyagers, merchants, and travellers, more than the works of authors ancient or modern; and yet, with all its errors, it is a performance of immense labour, persevering research, and great curiosity of collection: the Rubrick inscribed upon it amply supplies the place of a memoir, and almost in every instance suggests a variety of reflections to those who are admirers of the science. It is likewise a geographical picture of great beauty and magnificence: it does honour to the noble city to which it was dedicated, which was once the Tyre of the western world, but has now fallen, and without a thirteen years siege, by another Nebuchadnezzar.

N. B. THE Planisphere is a circle of five feet eight inches Venice measure, nearly six feet seven inches English; the corners of the table are filled up with four small circles, representing, 1. The Ptolemaic system and the spheres. 2. The lunar influence over the tides. 3. The circles described on the terrestrial globe. And 4. A miniature of our first parents in the

act of being driven out of paradise, with the four rivers of that garden. It was found in such a state of preservation, that very little of the original has been left out as illegible; and the testimonies from Venice of the fidelity of the copy are perfectly satisfactory. The Rubrick was written in Gothic letters, and full of abbreviations; these the artist (Mr. Frazer) has supplied, and reduced the letter to a modern form, by which he has rendered the examination far more pleasurable to the eye, and far more easy to the apprehension. In short, he has completed the work highly to his own honour, and to the satisfaction of his employers: and it is but justice to add, that the specimens he has produced of his excellence as a miniature painter place him high in his profession, and in hopes of contributing to his success at home, I think myself bound by a debt of gratitude to advertise the public, that his address is No. 5, Suffolk-street.

The Planisphere itself is, by the direction of the Subscribers, now deposited in the British Museum.

APPENDIX

TO

PART THE SECOND.

ADVERTISEMENT.

THERE is a Catalogue of Articles, and the Countries from which they come, in Hackluyt, ii. 277; and a modern Catalogue in the Asiatick Annual Register, 1803, p. 111. in both which it is curious to see the multiplicity of articles which correspond in the modern invoices with those of the Ancients.

APPENDIX

TO

PART THE SECOND.

A CATALOGUE *of the* ARTICLES *of* COMMERCE

MENTIONED IN

THE DIGEST OF THE ROMAN LAW,

AND IN

THE PERIPLUS OE THE ERYTHREAN SEA.

AFTER the former part of this Work was published, a recommendation occurred in the Indian Disquisitions of Dr. Robertson (p. 58.), to compare the Roman law in the Digest with the articles of commerce in the Periplûs. This task I undertook with great readiness, and had the satisfaction to find the concurrence so general, as to encourage me to pursue the comparison throughout. The conclusion derived from the performance of this business was a conviction that the Digest was the best commentary on the Periplûs, the most ample proof of its authenticity, and the most complete illustration of the Oriental Commerce of the ancients. This consideration led me to the desire of consolidating the two catalogues into one, in which I might concentrate the proofs, and at the same time have an opportunity of correcting the errors I had been led into by my dependance on classical authorities, without a sufficient

knowledge of Natural History. To this cause, I trust, will be imputed the defects of the former catalogue; and, though the same cause may still operate, in a degree, I have now, however, been assisted in removing many misconceptions by the kindness of Dr. Falconer of Bath, and by that of his Son, who is a fellow-labourer with me in the illustration of ancient geography, and the translator of the Periplûs of Hanno. To both of them I was known only by my publications, and unsolicited by me, both proposed several corrections which I am happy to adopt. If the object of an author is the investigation of truth, he will receive all friendly corrections with gratitude, rather than defend his errors with pertinacity or ill-humour. I am sensible also, that I stood in more need of advice than many others might have done, because I came to this office with less information in Natural History, than was requisite for the undertaking. This, perhaps, might have been a sufficient reason for declining it altogether; but I wished to elucidate the author that I had before me; and, I trust, that what I have done, will be acceptable to every reader who is not deeply versed in Natural History himself.

N. B. When an article in the following catalogue is found both in the Digest and the Periplûs, it will be marked D. P.; and with one of those letters, when it occurs only in one of them.

When the observations are inserted which I received from Dr. Falconer or his Son, those of the Father will be marked F. F. and those of the Son F.

Observations which are still dubious will be marked Q.

The Rescript of the Roman Emperors relating to the articles imported into Egypt from the East, is found in the Digest of the Roman Law, book xxxix. title xv. 5, 7. in the edition of Gothofred, vol. i. p. 570, (best edition, vol. ii. p. 919.) and cited by Salmasius Plin. Exercit. p. 1189. Paris edition, 1629. Ramusio, vol. i. p. 371. Purchas, vol. ii. p. 33, and by Bergeron, &c. &c.

Neither Ramusio or Purchas have entered into any discussion of the articles specified, but enumerate them as they stand in the Rescript, which Gothofred shews to be abundantly incorrect. Salmasius has done much towards restoring the true reading, and much is still wanting.

The law itself, or rather the Rescript, is imputed by Ramusio to Marcus and Commodus, and, standing, as it does, between two other Rescripts, which bear their name, it is probable that this opinion is right.

The passage which precedes the Rescript in the Digest, is as follows:

"The Rescript of Marcus and Commodus ordains, that no "blame shall attach to the collectors of the customs, for not "noticing the amount of the customs to the merchant, while "the goods are in transit; but if the merchant wishes to enter "them, the officer is not to lead him into error."

Upon this, it is only necessary to observe, that Commodus was associated with his father Marcus Aurelius Antoninus, in the empire, four years before his death; that is, from the year 176 to 180. This makes the Rescript more than a century later than the date I have assumed for the Periplûs. Anno 63. See supra, p. 57.

GENERAL TITLE OF THE SECTION.

Species pertinentes ad Vectigal,

Which may be rendered, " Particular articles [of Oriental " Commerce] subject to duties [at Alexandria."] Or, if Species be confined to a sense in which it was sometimes used, it signifies *Spices*, gums, drugs, or aromatics. Salmasius shews that the same term had been applied in Greek: Inferior Latinitas *speciem* simpliciter dixit, ut Græci, Σιλφίου εἶδος, Λιβυκὸν εἶδος. P. 1050. And Dr. Falconer observes from Du Cange: Aromata, vel res quævis aromaticæ. Gallis, *Epices.*—Spices were mixed with wine. Solomon's Song, viii. 2.; and in the middle ages this mixture was called Pigmentum, the Spicey Bowl; Potio ex melle et vino et diversis speciebus confecta. Du Cange.—Species is likewise used for the ingredients of a compound medicine before they are mixed. F. F.

ARTICLES *of* COMMERCE *mentioned in the* DIGEST, *and in the* PERIPLUS *of the* ERYTHREAN SEA, *assigned to* ARRIAN.

A

1. Ἀβόλλαι. *Abollæ.* P.

IF this term be Greek, it is remarkable that it should not occur in the Greek Lexicons, and if it be Latin (as apparently it is), it is equally remarkable that a Greek merchant of Alexandria, such as the author probably was, should have intro-

duced a Latin term into his Greek catalogue; but Latin[1] terms crept into purer Greek writers than our author, and commerce perhaps had adopted this, as expressing the actual garment which was neither used by, or formerly known to the Greeks. The Roman Abolla was a military cloke[2], perhaps not unlike our watch cloke. And the adoption of the word is not more strange than the usage of the English in adopting the French *Surtout*, or the French adopting the English *Redingote* (Riding Coat).

2. Ἄβολοι νόθοι χρωμάτινοι.

Single cloths dyed and imitating some of a superior or different quality. But see Salmas. ad Vopiscum.

Ἄβολοι, according to Salmasius (Plin. Exercit. 1062,) are single cloths, the same as ἁπλόιδες, in opposition to διπλόιδες, or double; but whether this relates to the texture, to the ornaments wrought on them, or the consideration of their being with lining or without, seems difficult to determine. Our weavers call a silk, *shot*, when the warp is of one colour and the woof of another; and the word Ἄβολοι may be literally rendered *unshot;* but it does not follow that this is an accurate rendering of the term. Homer mentions garments both single and double; and Deborah makes the mother of Sisera say, that her son had perhaps brought home a raiment of needle work,

[1] The word Abolla is not in Du Cange, but it is in Meursius, who says, that the following article Ἄβολοι ought to be read Ἀβόλλαι. The gender of the adjectives used with Ἄβολοι is adverse to this supposition.

[2] It seems worn as an outer military cloke by officers and men of rank. Ptolemy, son of Juba, king of Mauritania, grandson of M. Antony by Selênè the daughter of Cleopátra, was killed by Caligula, who was a great grandson of Antony, non aliâ de causâ quam quod edente se munus, ingressum spectacula convertisse oculos hominum fulgore purpureæ *abollæ* animadvartit. Suet. Calig. c. 35. It was likewise a garb of the philosophers, audi facinus majoris Abollæ. Juvenal.

of needle work *on both sides*, which is apparently correspondent to the tunick, which Ulysses describes to Penelopé (Od. lib. T. 230). If this interpretation, therefore, should be admissible, Ἄξολοι χρωμάτινοι may be rendered *plain cloths of one colour*, and νόθοι would express that they were of an inferior quality. But see the term διπλοείματος, Diog. Laertius in Diogene, p. 350. and Horace. *Duplici*[3] *panno* patientia velat, with the address of Plato to Aristippus in Diog. Laert. Aristip. p. 67. Σοὶ μόνῳ δέδοται καὶ χλαμύδα Φορεῖν καὶ ῥάκος. "You are the only Philosopher who "can assume with equal propriety the dress of a gentleman "(χλαμύδα), or the ordinary garb (ῥάκος) of a cynick."

3. Ἀδάμας. *Diamond. D. P.*

The ancients certainly apply this word to our modern gem the diamond, but use it in a larger sense as we still use adamant, applied to other hard substances. But in the only passage where it occurs in the Periplûs, it is mentioned on a coast where diamonds very probably were to be purchased, and is joined with the Hyacinth or Ruby, and other transparent stones.

Theophrastus thought the diamond indestructible by fire, which is now found to be a mistake, F. Many experiments have been tried on this subject of late, and diamonds under the rays of a reflecting mirror, have been reduced to *charcoal!*

4. *Alabanda.*

A precious stone between a ruby and an amethyst. Dutens, p. 16. But Hoffman renders it toys or trifles. See Cosmas,

[3] See Apollonius, Epis. iii. where διπλᾶ is opposed to τρίζωνι. Diógenes first used the τρίζωνι διπλέμενος. Laertius 317. διὰ τὸ ἀναίγκην ἔχειν. Hence ῥακος is equivalent to duplex pannus.

Ind. Montfauçon, Nov. Col. Patrum, p. 337. Ἡ Ταπρόβανη· εἶτα λοιπὸν εἰς τὴν ςερεὰν ἐμπόριον, ἡ Μαραλλὼ βάλλεσα κοχλίες ἔς. Καβὲρ βάλλεσα τὸ Αλαβανδηνόν. Marallo seems to be Marawar, and Kaber the Kaveri; and if pearls are the attribute of Marallo, some precious stone should of course be the attribute of Kaber.

5. Ἀλόη. D. P.

There are two sorts of Aloe, one a bitter cathartic, and another an aromatic, by some supposed to be the sandal-wood. See Salm. Plin. Ex. 1056; but it is, to all appearance, the Agallochum of the Digest, mentioned still under the name of Agala[4], as an odoriferous wood by Captain Hamilton, at Mascat. Account of the E. Indies, vol. i. p. 68. It is probably used by the author of the Periplûs in the former sense, as being mentioned on the coast of Oman in Arabia, where the Succotrine Aloe is naturally imported, as the island Socotra itself was under the power of the Arabs on the main, being subject to Eleazus king of Sabbatha, in the neighbourhood of Oman.

It is remarkable that when the author arrives at Socotra, he says nothing of the Aloe, and mentions only Indian Cinnabar as a gum or resin distilling from a tree. I was at a loss to understand what this meant, till I learned from Chambers's Dictionary that the confounding of Cinnabar with Dragon's Blood was a mistake of ancient date, and a great absurdity. Dragon's Blood is still procurable at Socotra.

6. *Amomum.* D. See *Kard-Amomum.*

[4] Agala wood is likewise mentioned in Cochinchina, by Mr. Chapman. Asiatick An. Reg. 1801. Miscel. p. 62. 74. Michaelis, Question xliii. says that Rumphius has given the best description of the Agallochum, in regard to its branches, leaves, and fruit; but is deficient in not giving the flower, &c.

7. Ἀνδριάντες. *Images.* P.

These are mentioned as imported into Oman in Arabia; but whether as merely ornamental, or objects of superstition, does not appear. Dr. Falconer has supposed that these might be images, brought from the east like our China figures; but they are imports from Egypt[5] into Arabia, and therefore probably Egyptian or Grecian workmanship. See Peripl. p. 16. F. F. & F.

8. Ἀργυρώματα, Ἀργυρᾶ σκέυη, Ἀργυρώματα τετορευμένα. *Plate, Plate polished.* P.

These works in silver do not appear to be the beautiful produce of Greek artists, but vessels of plate adapted to the market. By the frequent mention of these articles, they must have formed a considerable branch of commerce.

9. Ἀρσενικὸν. *Arsenick.* P.

10. Ἀρώματα. *Aromatics.* P.

Drugs in general are comprehended under this term (Sal. Plin. Ex. p. 1049, 1050.)

11. Ἀσύφη. *A species of Cinnamon.* See Κασσία. P.

B

12. Βδέλλα. *Bdellium.* P.

An aromatic gum, supposed to be imported from Africa, but now seldom used[6]. Salmasius[7] describes it as a pellucid exudation from the tree so called, not quite clear, of a waxy

[5] I have in my possession several small images, about six inches in length, of baked earth, taken out of the catacombs: they are inscribed with hieroglyphicks, and Egyptian alphabetical characters.

[6] Chambers in voce.

[7] Plin. Exercit. p. 1150.

substance, and easily melted, called by the Portuguese *anime* there are three sorts, Arabian, Petræan, and Bactrian. It was imported, according to the Periplûs, from Binnágara, or Minnágara [Bekher], in Scindi, and from Barugáza [Baroach] in Guzerat.

The בְּדֹלַח Bhedolahh of scripture, Gen. ii. 12. Numb. xi. 7. rendered bdellium, is by the Rabbis rendered chrystal, and has nothing in common with the bdellium of the Periplûs but its transparency. The word bdellium seems a diminutive of the bdella used by our author. Pliny, b. xii. c. 9.

There are still found three sorts; two African, rather of dark brown hue; and one Asiatic, answering the descriptions of Salmasius, generally brought to England among parcels of myrrh. There are specimens of the African sort in the collection of Dr. Burgess.

Bdella are supposed by Benjamin of Túdela to be pearls (p. 52. Bergeron); and oysters, either he or his translator calls reptiles: he finds them at Katiphan (el Katif). And Schikard interprets bedolach, pearls; but says they are not the bdellium of scripture. Pliny: translucidum, simile ceræ, odoratum, et cum fricatur, pingue, gustu amarum, citra acorem; aliqui Peraticum appellant ex Media advectum. Lib. xii. 9. or 19 Hardouin. Peraticum is the general term of the Periplûs for any article brought from beyond the Straits of Bab-el-mandeb; or, according to Hardouin, ἐκ τῶν πέρατων τῆς γῆς. In Pliny it is evidently a gum; the best sort from Bactria, and the inferior species from Arabia, India, Media, and Babylon. It is also a gum apparently in the Periplûs. F. A pearl and a round drop of gum are similar both in form, brilliancy, and opacity; but which is the primitive, and which the derivative, is not

easy to determine. In the course of nature, gum would be seen exuding from the plant before pearls would be brought up from the bottom of the sea.

13. *Beryllus.* D. *Beryl, l'Aigue Marine, Aqua Marina.* Some have mistaken it for the cornelian, but the true beryll has the colours of sea water[8]. Pliny, xxxvii. 20. Hard. Probatissimi sunt ex iis, qui viriditatem puri maris imitantur. It is a gem of great hardness, very brilliant, transparent, and of a green and blue colour delicately mixed, and varying according to the different proportions of either. Dutens.

14. *Byssus, Opus Byssicum.* D. *Byssinon.—Cotton Goods.* I understand there is a work of Dr. Reinhold Forster, De Bysso Antiquorum. I regret that I have not consulted it.

Γ

15. *Galbane, Galbanum.* D.

A gum from a ferula or fennel growing in Africa. Salm. p. 353. It is an emollient, and used in plaisters; supposed to be derived from the Hebrew chelbena, fat. Exod. xxx. 34. Eccles. xxiv. 21. Chambers in voce.—"Galen, Dioscorides, "and Pliny, describe it also as the produce of a ferulaceous "plant. Bubon Galbanum foliolis rhombis, dentatis, striatis, "glabris, umbellis paucis. Linn. Sp. Pl. p. 364. Little used "as an internal medicine; but described also by Nicander in "the Theriaca." F. F.

16. Γιζειρ. Ζίγειρ. Γίζι. *A species of Cinnamon.* P. See Κασσία.

[8] γλαυκὴ is the epithet of Eustathius ad Dionysium, lin. 1107. which suits the aigue marine. The jasper he calls a plain green; the diamant, brilliant; but γλαυκὴ he likewise applies to the topaz. Why?

Zigeer in Persick signifies small. The smaller and finer rolls of cassia were most valued, Dioscorides says, the best sort was called Gizi, which is a corruption of Zigeir.

Δ

17. Δικρόσσια, p. 8. *Dicrossia.* — *Cloths either fringed or striped.* P.

Κορσαί and κροσσαί, according to Salmasius[9], from Hesychius, signifies the steps of a ladder, or in another sense, the cornice of a wall, or the battlements. But he derives the same word from κείρω, to shave, and interprets κόρσοι, locks of hair. Hence cloths, δικρόσσια, he says, are those which have a fringe knotted or twisted.

But Homer uses the word twice. 1st. Κρόσσας μὲν πύργων ἔρυον καὶ ἔρειπον ἐπάλξεις. M. 258, where it agrees with the interpretation of Hesychius, the cornice of the wall, or as it may be rendered the *step* of the parapet, a *rim* or *line* running round below the battlements. Not differing, perhaps, from the application of the word as used Ξ 35, where Homer says, the ships were too numerous to be drawn up on the shore in one *line*. Τῷ ῥα προκρόσσας ἔρυσαν[10], they therefore drew them in *lines* one behind another like the steps of a ladder. Agreeable to the other explanation of Hesychius, or, as Apollonius renders it, ἀποκρηπιδώματα, in *stripes*[11].

We may therefore conclude, that we cannot err much in rendering the Δικρόσσια of the Periplûs, either cloths *fringed*, with Salmasius, or *striped* with Apollonius. So Virgil, virgatis

[9] Plin. Exercit, p. 762.
[10] See Lennep in voce.
[11] See Apollon. Lexicon in voce.

lucent sagulis. The term used here is in conjunction with cloths. Ἄβολοι . . . . . καὶ λέντια καὶ δικρόσσια, where perhaps ἄβολοι is in opposition to δικρόσσια. Λέντια is the Latin word Lintea, and Meursius in voce says, λεντία ἄκροσσα are plain linens, not striped.

18. Δηνάριον. *Denarius.—The Roman coin, worth in general denomination nearly 8d. English.* P.

It appears by the Periplûs, that this coin was carried into Abyssinia for the sake of commerce with strangers, and that both gold[12] and silver Denarii were exchanged on the coast of Malabar against the specie of the country with advantage to the merchant.

19. Δάκα, Κιττὰ, Δάκαρ. P.

Are joined in the Periplûs with Kassia, and are supposed to be inferior species of the cinnamon. See Ramusio, in his discourse on the voyage of Nearchus, and Salmas. de Homonymiis Hyles Iatrices, c. xcii. c. xciii. a work referred to by Salmasius himself, but I have not seen it.

20. Δέλικα. P.

Slaves of a better sort and for the Egyptian market.

E

21. Ἔλαιον. *Oil of Olives.* P.

22. Ἐλέφας. *Ivory.* D. P. Ebur. D.

23. Ἐυόδια. *Fragrant spices or gums.* P.

[12] The gold Denarius, according to Arbuthnot, was the forty-fifth part of a pound of gold in the age of Nero.

Z

24. Ζῶναι σκιωτὰι. P.

Girdles or purses wrought or embroidered. A great commerce throughout the east is still carried on in sashes, ornamented with every sort of device, and wrought up with great expence. Σκιωτὰι does not occur in the lexicons, but probably means *shaded* of different colours; Stuckius says, of a dark colour.

25. Ζίγγιβερ. *Ginger.* D.

Not mentioned in the Periplûs. Salmasius [13] says, the ancients knew little of it, and believed it to be the root of the pepper plant. It is applied to a species of cinnamon by Dioscorides (p. 42.), possibly to an ordinary sort from the coast of Zanguebar, and Zingiber itself may be derived from Zingi, the name of the African blacks on that coast.

H

26. Ἡμίονοι νωτηγοὶ. *Mules for the saddle.* P.

Θ

37. Θυμίαμα μοκρότε. *Gums or Incense.* D. P. Μοκρότε occurs only in the Periplûs, p. 7. and without any thing to render it intelligible.

I

28. Ἱμάτια βαρβαρίκα ἄγναφα τὰ ἐν Αἰγύπτῳ γινόμενα. *Cloths.* P.

[13] Plin. Exercit. p. 1070.

For the Barbarine[14] market, undressed and of Egyptian manufacture.—The Barbarines are the ancient Troglodyte shepherds of Upper Egypt, Nubia, and Ethiopia, very graphically traced and distinguished by Bruce.

Ἱμάτια βαρβαρίκα σύμμικτα γεγναμμένα. *Cloths.* P.

For the Barbarine market, dressed, and dyed of various colours.

Ἱματισμὸς Αραβικὸς χειριδωτὸς, ὁτε ἁπλᾶς, καὶ ὁ κοινὸς, καὶ σκοτυλάτος, καὶ διάχρυσος. *Cloths.* P.

Made up, or coating for the Arabian market.

1. Χειριδωτὸς. P.

With sleeves reaching to the wrist.

2. Ὁ τε ἁπλᾶς καὶ ὁ κοινὸς. See Αἰολοὶ. P.

3. Σκοτυλάτος. P.

Wrought with figures. From the Latin Scutum, Scutulatus; the figure being in the form of a shield. A dappled grey horse is thus called Scutulatus.

4. Διάχρυσος. *Shot with gold.* P.

5. Πολυτελὴς. P.

Of great price.

6. Νόθος. P.

In imitation of a better commodity.

7. Περισσότερος. P.

Of a better quality, or in great quantity.

8. Παντοῖος. P.

Of all sorts.

[14] The west coast of the Gulph of Arabia.

9. Πολύμιτα, πολύμπα. P. Ezekiel, xxvii. 24. בְּגָלוֹמֵי בִּמְכֻלָּלִים *Polymitorum.* Vulgate, &c. *Pallis Hyacinthinis, Chlamydibus coccineis.* Chald. Parap. Stuckins. multis filis contextas, *very fine.*

29. Ινδικον μελαν. P. *Indico.* Salmas. & Hoffman in voce. See Pliny, xxxv. 27. Hard. cited by Hoffman, where it is manifestly indico, used both as a colour and a dye.

30. Ἵπποι. *Horses.*

As presents, and as imports *into* Arabia.

K

31. Κάγκαμος. *Kankamus—Gum Lack.* D. P.

According to Scaliger; and Dioscorides calls it a gum. But Salmasius rather inclines to think it a drug like myrrh. Lack was used as a purple or blue dye by the Indigo dyers. Ινδικοβαφοι. Salmas. Plin. Exercit. 1148. 1152. Plin. xii. 20. See Pomet's History of Drugs, b. viii. p. 199, who says, gum of four colours was found in one lump. He does not hold it to be Gum Lack, but that it has a smell like it; it is found in Africa, Brasil, and Saint Christopher's. Pomet's Specimen was from the West Indies.

32. Κάλτις. *Kaltis—A Gold Coin.* P.

According to the Periplûs it was a coin of this name current in Bengal, and that the metal was collected from a mine in the neighbourhood. Stuckius says, a coin called Kalais is still current in Bengal, on what authority does not appear. Paolino notices the word, but I cannot recal the passage to my memory; it is called Kalteen in Bengal, or Kurdeen, in the Ayeen Acbari at present. As. Res. vol. v. p. 269.

33. Καρδάμωμον. *Kardamom.* D.

Both the Amomum and Cardamomum are mentioned in the Digest, and are supposed by Dr. Burgess to be the same aromatic, and that amomum has the addition of kar, from its resembling an heart, which it does. The doubts of Natural Historians on this subject are numerous, and Salmasius, after much learned disquisition, leaves the question undetermined. (See article Kostamomum.) But the opinion of my friend Dr. B. is this, that the kardamomum differs from the amomum chiefly as to its outward appearance in the shape of the pod or the vessels in which it is contained. The true amomum, he says, is from Java, its pod is in the shape of a nasturtium, under which title it is described by Pliny, while the kardamomum is in the form of an heart. It is brought from Sumatra, Ceylon, and Africa. The Sumatran approaches nearest that of Java, both in shape and flavour, but none of the sorts are equal to the Javan; the flavour is aromatic, warm, and pungent, in which qualities it is resembled by all those species which take the addition of amomum, and I have been favoured with specimens of all the different sorts by Dr. B. Theophrastus says both come from Media; others derive them from India. Martin Virg. eclog. iii. 89. Assyrium amomum, equivalent to Median. Galen says it is considerably warm: θερμῆς δυναμέως ἱκανῶς. Stephan. in voce. The Καρδάμωμον ἡδίον καὶ ἀρωματικώτερον, τῆς θερμῆς δυναμέως ἀσθενεστέρας. Stephan. in voce. Warmth and pungency are therefore the qualities of both, and the difference in degree accords with the two specimens of Dr. B. Whether the Greeks first found these in Media and Assyria, or whether there were aromatics in those countries resembling those of India, may still be doubted. The Greeks called cin-

namon the produce of Arabia, till they had a knowledge of that country themselves.

Murray, vol. i. p. 65, doubts the origin of the name; for he says, " The Indians call it cardamon, but thinks it very dubi-" ous, whether the cardomum of the ancients be the same. " The pericarpium of the lesser cardomum has obscurely the " shape of a heart. Lewis says it is described in the Hortus " Malabaricus under the title of Elettari." F. F. What is added must compel me to retract my supposition, that amomum expresses warmth and pungency. " Notârunt viri docti " ἄμωμον λιβανῶτον, thus esse et sincerum et inculpatum, vete-" resque ἄμωμον vocâsse omne aroma quod purum et non " vitiatum esset. Bodæus a Stapel. Theophrast. p. 981. " Stephan. in voce, Ἄμωμον." F. F. But in Stevens I find Λίβανος ἀμωμίτης, and not ἄμωμον λιβανῶτον.

If the opinion of Dr. Burgess be right, which seems highly probable, and this aromatic be found only in Java and Sumatra, or perhaps in Ceylon, it argues in favor of the Periplûs, which is silent upon this subject; for the veracity of the merchant is as much concerned in not noticing what he had not, as in describing what he had seen.

34. *Capilli Indici.* D.

35. Καρπάσος. *Karpasus—Fine Muslins.* D. P.

Opposed to ordinary cottons. It is remarkable that the native Shanſkreet term is *Karpasi*, as appears by Sir William Jones's catalogue. Asiat. Res. vol. iv. p. 231. Calcutta edition. But how this word found its way into Italy, and became the Latin Carbasus (fine linen) is surprizing, when it is not found in the Greek language. The Καρπάσιον λίνον of Pausanias

(in Atticis), of which the wick was formed for the lamp of Pallas, is Aſbestos, so called from Karpasos, a city of Crete. Salm. Pl. Exercit. p. 178.

Carbaso Indi corpora usque ad pedes velant eorumque rex aurea lectica margaritis circum pendentibus recumbit distinctis auro et purpurâ carbasis qua indutus est. Q. Curtius, lib. viii. c. 9. F.—I owe this passage to Mr. Falconer, and think it may confirm the reading of Salmasius of Σινδόνες μαργαρίτιδες, for Σινδόνες Ἐδαργέιτιδες. Peripl. p. 34. So Lucan also, Phars. iii. 239.

Fluxa coloratis astringunt carbasa gemmis. F. Karpesium is a medicinal juice. Dioscor. A poisonous juice. Galen. It is a substitute for cinnamon, or a species of that spice. Ἀντὶ Κινναμώμε Καρπήσιον. And ἀντὶ Κινναμώμε, Κασίας τὸ διπλῆν, ἢ Καρπήσιον. The different species are unknown. Salmas. p. 1306. —Has this Καρπήσιον any reference to the Κάρφη of Herodotus?

36. Καρυοφυλλον. D. *Garofalo*, It. *Girofle*, Fr. *Clou de Girofle*, Fr.

Our English clove is probably from clou, a nail, which the clove resembles, but not without a possibility that it may be a contraction of girofle. The garyophyllon of Pliny is not the clove. F. F. The clove is a spice of the Moluccas, which is the reason that the Merchant of the Periplûs did not see it or record it; neither do I find it in the catalogue of Dioscórides (Matthioli) as an Oriental spice. It should seem therefore from Pliny, the Periplûs, and Dioscórides, that this spice was not known early to the ancients: and the reason was, because they did not go farther east than Ceylon. Salmasius, however, is of a different opinion, as I learn from Dr. Falconer, who cites his work, De Homonym. Hyles Iatric. c. 95.—which I have not seen:

Vidit Plinius Caryophyllon quale apud nos frequens visitur cujus in summo clavi capite rotundum extat tuberculum piperis grano simile, sed grandius et fragile, multis veluti fibris intus refertum. Calicem floris esse volunt adhuc conniventem, et nondum apertum, videtur existimasse Plinius esse fructum ipsum pediculo suo insidentem et inhærentem, nam clavus esse plane ligneus, et surculi instar habere ei visus est. . . . . Caryophyllum ad condimenta olim usurpatam ut piper et costum, &c. . . ostendunt apicii excerpta; . . . . . quod dixit Plinius de odore Caryophyllorum fidem facit non alia fuisse ejus ætate cognita quam quæ hodie habentur, &c. Dr. F. is not convinced by Salmasius, and his doubt is well founded. F. F. Cosmas mentions the Ξυλοκαρυοφυλλον at Ceylon, and Hoffman (in voce) informs us, that the wood of the clove-tree is now used in odoriferous compositions and unguents. It is a circumstance in favour of the veracity of the Periplûs, that the Merchant has not recorded this spice; and of Cosmas, that his friend Sopatrus saw only the wood. An hundred years later than the Periplûs, it had found a place in the Digest: the custom-house at Alexandria received not the imports of one merchant only, but every thing that found its way by any conveyance from the East. It ought not to be omitted, " that caryophyllon is pos-" sibly not derived from the Greek; for the Turks use the term " Kalafur, and the Arabs, Karumfel, for the clove." Nieuhoff. Leg. Batav. vol. ii. p. 93. F. F. Still it may be inquired, whether the Arabic karumfel may not be borrowed from the Greek karuophyl: many Greek terms for plants, drugs, &c. adopted by the Arabs, are noticed by Salmasius.

37. Κασσία. *Kasia.* D. P.

This spice is mentioned frequently in the Periplûs, and with various additions, intended to specify the different sorts, properties, or appearances of the commodity. It is a species of cinnamon, and manifestly the same as what we call cinnamon at this day; but different from that of the Greeks and Romans, which was not a bark, nor rolled up into pipes like ours. Their's was the tender shoot of the same plant, and of much higher value, sold at Rome in the proportion of a thousand denarii [15] to fifty; it was found only in the possession of Emperors and Kings; and by them it was distributed in presents to favourites, upon solemn occasions, embassies, &c.

That it was the tender shoot, and not hollow, may be proved from Pliny, lib. xii. 19, where he informs us that Vespasian was the first that dedicated crowns of cinnamon inclosed in gold filagree (auro interrasili) in the Capitol, and the Temple of Peace; and that Livia dedicated the root in the Palatine Temple of Augustus; after which he adds, that the casia is of a larger size than the cinnamon (crassiore sarmento), and has a thin rind rather than a bark, and its value consists in being *hollowed out* (exinaniri pretium est). He adds, that the best sort has a short pipe of this rind or coating (brevi tunicarum fistulâ et *non* fragili, *lege* et fragili); this Casia is manifestly a Cinnamon, and by consulting the two chapters of Dioscórides on Casia and Cinnamon, the best casia called Daphnítis, at Alexandria, is doubtless the same. Matthioli, p. 42; and again his cinnamon is, "*sottile di rami*," a very fine spray, with frequent knots, and smooth between the joints. Salmasius cites Galen, who compares the Karpasium τοις Κινναμώμῳ ἀκρέμοσι, to the extreme shoot or spray of cinnamon, and ἀκρέμοσι is so

[15] Pliny.

peculiarly expressive of this, as to remove all doubt, (p. 1304, Plin. Ex.) but if our cinnamon is the ancient casia, our casia is again an inferior sort of cinnamon; both are known to our druggists and grocers; and since the conquest of Ceylon, the duty is lowered on *our* cinnamon, and raised on *our* casia. The reason of which is plain; because the true and best cinnamon is wholly our own by the possession of Ceylon, and casia is procurable from Sumatra, and several of the eastern isles. (See Marsden's Sumatra, p. 125.) It is plain, therefore, that we adopt cinnamon for the casia of the ancients, and casia for an inferior cinnamon. Whether the cinnamon and casia of the ancients were both from the same plant, may be doubted; for there are different species even of the best sorts, as we learn from Thunberg; but that both had the same virtue, though not equal in degree, we are assured by Galen, who informs us, that two parts of casia are equal to one of cinnamon. (Matthioli, p. 46.) And Galen examined both when he composed the Theriac for the emperor Severus.

I am confirmed in the opinion I had formed by Dr. Falconer, who (after citing Linnæus, Combes, Philos. Transact. 1780, p. 873.; Dossie's Memoirs of Agriculture, p. 202.; Solander; Thunberg, Vet. Acad. Hanbl. 1780, p. 56.; and Murray, Apparat. Med. vol. iv. p. 441, 442. edit. Gotting. 1787) writes thus: "I myself compared two bundles, one of casia and "another of cinnamon, and in presence of all the physicians "and surgeons of the General Hospital at this place [Bath], "and none of us could find any difference in the size of the "pieces, in the taste, flavour, colour, or smell of the different "articles, either in quality or degree." These are the two species as now distinguished; that is, the cinnamon of Ceylon,

and the casia (say) of Sumatra. He then adds: " Perhaps it " may be true that the small branches were called cinnamon " [by the ancients], but the difference between that and casia " was small. Galenus palam prodit (inquit Matthiolus in " Dioscoridem) cassiam sæpenumero in cinnamomum trans- " mutari, fateturque se vidisse cassiæ *ramulos* omni ex parte " cinnamomum referentes, contra pariter inspexisse cinnamomi " surculos cassiæ prorsus persimiles. Matthiol. Dioscor. p. 34. " he says, the sticks of cinnamon are not in length above half " a Roman foot; and Dioscórides, in Matthioli's translation, " uses the words tenuibus *ramulis*." F. F.—See also Larcher, Herod. tom. iii. p. 375. who supposes that the excess of price in the spray, was occasioned by its causing the destruction of the plant when so cut.

This sort we must first consider, because they themselves applied the name improperly, having it derived, by their own account, from the Phênicians[16], and giving it to the same production, though in a different form and appearance from that by which it is known to us.

The kinnamomum of the Greeks and Romans was necessarily derived from the Phênicians[17], because the merchants of that country first brought it into Greece. The Greeks themselves had no direct communication with the east; and whether this spice was brought into Persia[18] by means of the northern caravans, or by sea into Arabia, the intermediate carriers between either country and Greece were of course Phenicians. It will therefore be no difficult matter to prove that

[16] Herodotus, lib. iii. p. 252. ed. Wess.

[17] See a curious mistake of Pliny's noticed by Larcher, of turning the Phenicians into a phœnix. Tom. iii. p. 349.

[18] By Persia is meant the whole empire.

the Phênician term expresses the cinnamon we have, and not that indicated by the Greeks and Romans. The term in all these languages signifies a pipe; for the Hebrew קָנֶה kheneh is the Latin canna; and syrinx, fistula, cannella, and cannelle, convey the same idea in Greek, Latin, Italian, and French. The Hebrew term occurs in Exodus, xxx. 23, 24. joined with casia, as it is almost universally in the writings of the Greeks and Romans. It is styled Sweet Cinnamon, and is written קִנְמֹן בֶּשֶׂם [19], khinemon besem, the sweet or sweet-scented pipe; and the word rendered Casia by our translators [20] is קִדָּה khiddah, from khadh, to split or divide longways. These two terms mark the principal distinctions of this spice in all these languages; as khinemon besem, Hebrew; casia syrinx, Greek; casia fistula [21], Latin; cannelle, French; and in the same manner the inferior sort is khiddah, Hebrew; xylo-casia [22], Greek; casia lignea, Latin.

[19] The whole 30th chapter is worth consulting on this curious subject, as it proves that many of the Oriental spices and odours were, even in that early age, familiar in Egypt.

[20] If from this chapter of Exodus we prove that cinnamon was known to the Hebrews in the age of Moses, we have a second proof of its being used in the embalmment of the mummies from Diodórus, lib. i. 91. tom. i. p. 102. Larcher, tom. ii. p. 334.

[21] The casia fistula of the moderns is a drug totally distinct: it is a species of senna which comes from the Levant, Egypt, Brasil, and the Antilles, and is a corruption from Acacia. Salm. Plin. Ex. p. 540. Certe casiæ nomen pro ea specie quæ solvit alvum ex *Acacia* factum quamvis diversum sit genus. Id. p. 1056. This corruption is not of very modern date; for Salmasius adds, Ut mirum sit ante hos trecentos et amplius annos, casiam fistulam Latinis dictam, eam quæ purgandi vim habet. See also Ramusio, vol. i. p. 282.

Mr. Falconer doubts concerning the casia fistula, but acknowledges that Bodæus on Theophrastus, p. 293. is of a contrary opinion. F. I cannot help thinking that the authorities here produced, in conformity to Bodæus, must preponderate.

[22] This species is distinctly marked in the Roman Law de publicanis, leg. xvi. D. Casia-syrinx, Xylo-casia. Salm. 1055. id. in Canticis Salomonis, Nardus, Crocus, Fistula cinnamomum. It is called Σκληροτερα, Hard Casia, in the Periplûs.

Whether the Greeks and Latins derive their term from the Hebrew khine-mon [23], or from the compound kheneh-amomum, is not so easy to determine; for amomum is a general term [24] for any warm drug or spice, and kin-amomum, in this form, would be again the spice-canna, the casia fistula under another description. But that the casia fistula and the casia lignea are marked as the two leading distinct species, from the time of Moses to the present hour, is self-evident. And I now say, that if the Romans applied the term Cinnamon to the tender shoot of this plant, and not to the pipe cinnamon, such as we now have it from Ceylon, their use of the word was improper. That this was the case, there is reason to think; but that there was some obscurity or fluctuation in their usage, is certain also.

Salmasius [25] quotes Galen to prove that the plant itself was brought to the emperor Marcus Aurelius, from Barbarikè [26], in a case seven feet long. Galen saw this, and there were other cases of a smaller size, containing specimens of an inferior sort. This, therefore, must be in a dry state; but this he says was

[23] קִנָּמֹן is from קָנֶה, a reed, canna, and the termination doubtful, but probably from מָנָה מָן, peculiar. It is in this sense that מָנָה, manna, signifies the food from Heaven; the *peculiar* food or bread. And hence קִנָּהמָן, the peculiar canna, by way of pre-eminence. Parkhurst derives it not from קנה, canna, but from קנם, khanam, to smell strong, but he allows there is no such verb in Hebrew. I cannot help thinking that קְנֵה בֹשֶׂם, khenneh besem, and קִנָּמֹן בֹשֶׂם, khinnemon besem, have the same root. The sweet khenne, the sweet khinnemon. Notwithstanding khenheh besem is rendered calami odoriferi, the sweet calamus, it is certainly not technically the calamus aromaticus.

[24] Salm. 401.

[25] Plin. Ex. p. 1304. Galen de Antidotis, lib. i.

[26] Barbarikè is perhaps not a proper name, but the port frequented by the Barbars of Adel or Mosyllon. It is the mart in Scindi; but whether Patala or Minnagara, is difficult to determine.

the true cinnamon. Undoubtedly it was, for the plant itself, and the spice, as we have it, in its usual form, have this difference and no more. But Galen says, in another passage [27], that casia and cinnamon are so much alike that it is not an easy matter to distinguish one from the other. And Dioscórides writes, "Casia grows in Arabia; the best sort is red, of a fine "colour, almost approaching to coral, strait, long, and pipy, "it bites upon the palate with a slight sensation of heat, and "the best sort is that called Zigir, with a scent like a rose." This is manifestly the cinnamon we have at this day; but he adds, "cinnamon has many names, from the different places "where it [is procured or] grows. But the best sort is that "which is like the casia of Mosyllon, and this cinnamon is "called Mosyllitic, as well as the casia." This therefore is only a different sort of the same spice, but it does not grow either in Arabia or at Mosyllon [28], it took its name from either country, as procured in the marts of either. This traffic is explained in the Periplûs, but Dioscórides was unacquainted with it. The description [29] he gives of this cinnamon is, "That "when fresh, and in its greatest perfection, it is of a dark "colour, something between the colour of wine and [dark] ash, "like a small twig or spray full of knots, and very odoriferous." This is manifestly not our cinnamon, but the same as Galen's, the tender shoot and not the bark. It is worth remarking that Dioscórides lived in the reign of Nero [30], and if the true source of cinnamon was then just beginning to be known by means of

[27] See Ramusio, vol. i. p. 282. The whole of this is from Ramusio.

[28] Bruce says it does grow in the neighbourhood of Mosyllon.

[29] See Larcher's whole Dissertation, tom. iii. p. 348. He is equally indebted to Salmasius as myself.

[30] Hoffman in voce.

the navigation detailed in the Periplûs, this knowledge had not yet reached Asia [31] Minor or Rome. Pliny who lived a few years later had just arrived at this information, for he says expressly, Mosyllon was the port to which cinnamon was *brought* [32], and consequently the port where it was procured by the Greeks from Egypt, and through Egypt conveyed to Rome. It had long been procured there, and long obtained the name of Mosyllitic, but it was now known not to be native, but imported at that place.

The trade to Mosyllon was opened by the Ptolemies; still, before the existence of a Grecian power in Egypt, the Greeks had probably little knowledge of it, but from the importation of it by the Phênicians; and the Phênicians received it, either by land-carriage from the Idumêans of Arabia, or when they navigated the Red Sea themselves with the fleets of Solomon, they obtained it immediately from Sabêa; perhaps also, if Ophir is Sofala on the coast of Africa, they found it either at that port, or at the others, which the Greeks afterwards frequented. These lay chiefly in Barbaria, (the kingdom of Adel,) comprehending the ports of Mosyllon, Malao, and Mundus, where it was possibly always to be met with. This commerce is at best only conjectural, neither could it be of long duration, as it ended with the reign of Solomon, and was never resumed; but that the Phênicians had a settled intercourse with Sabêa we learn incontrovertibly from Ezekiel [33], and that Sabêa was the centre of Oriental commerce, is proved in our account of the Periplûs.

[31] Dioscórides was a native of Anazarba; but whether he wrote there or at Rome, I have not been able to discover.

[32] Portus Mosyllites quo cinnamomum *devehitur*. Lib. vi. c. 29.

[33] Cap. xxvii. v. 23. Sheba is Sabêa.

It is this circumstance that induced all the early writers to impute the produce of India to the soil of Arabia; an error which commenced with the first historians extant, and which existed in history till the age of Pliny, and in poetry almost to the present hour. Fable is the legitimate progeny of ignorance; we are not to wonder, therefore, when we read in Heródotus[34], that casia grew in Arabia, but that cinnamon was brought thither by birds from the country where Bacchus was born, that is India. The term used by Heródotus indicates the cinnamon we now have; for it signifies the peel, hull, or rind[35] of a plant, and evidently points out the bark, under which form we still receive this spice. The error of Heródotus is repeated by Theophrastus, who assigns both casia and cinnamon to Arabia[36]: this intelligence I receive from Bochart; and I am obliged to him also for a very curious citation from Uranius, in Stephanus de Urbibus, who says, the country of the Abasenes produces myrrh, aromatic gums or odours, frankincense, and the bark [of cinnamon][37]. This passage is valuable as the first instance extant in which the name of Abyssinians is mentioned. But it is not to be depended on, unless it can be referred to the conquests of that nation in Arabia, for these Abaseni are evidently joined with the Arabians of Sabêa and Hadramaut.

[34] Lib. iii. p. 252. ed. Wess. and p. 250. where he mentions a similar fable of serpents which guard the frankincense.

[35] Κάρφεα, from Κάρφω, arefacio, to dry; and hence the dry hull, peel, or shell of a plant or fruit.

The Arabick term is Querfaa, Querfe, and Kerfak. Nieuhoff in Churchill, vol. ii. p. 283. If this be true, the Arabs, according the principle of Salmasius, adopted the Greek Κάρφεα.

[36] Bochart, vol. i. p. 105. Sir William Jones, As. Res. iv. 110. 113.

[37] Ἡ χώρα τῶν Αβασηνῶν φέρει καὶ ὅσσον [quod ὄζει] καὶ θυμίαμα καὶ ΚΕΡΠΑΘΟΝ. Bochart, vol. i. p. 106. Κέρπαθον is probably the Κάρφεα of Herodotus, unless it is a false reading for Κάρπαθον or Κάρπασον, one of the terms for cotton.

But whatever errors are to be found in ancient authors, relative to the production of spices in general, and cinnamon in particular, still that they found their way into Egypt, Palestine, Greece, and all the countries bordering on the Mediterranean, in the earliest ages, is a fact. This admits of proof from the thirtieth chapter of Exodus, and we have traced the course of their introduction in the preliminary disquisitions of the first book.

We may now, therefore, proceed to examine the various sorts of this spice mentioned in the Periplûs, which amount to ten; and very remarkable it is, that the modern enumeration of professor Thunberg should comprehend just as many species. Not that it is to be supposed the species correspond, but the coincidence of number is extraordinary. It is worthy of notice also, that cinnamon is a term never used in the Periplûs; the merchant dealt only in casia; cinnamon was a gift for princes. There is, even in this minute circumstance, a presumption in favour of his veracity, not to be passed without observation.

It has been already mentioned in the account of Ceylon, that the ancients, who first referred this spice to Arabia, and afterwards to the cinnamomifera regio in Africa, as supposing it to grow in those countries because they procured it there, never mention it in Ceylon. I think, with Sir William Jones, that this is one of the obscurest circumstances in ancient commerce. Can we conceive that it grew there in any age, and was afterwards eradicated? or must we not rather conclude, in conformity to the suffrages of all the moderns, that there is no genuine cinnamon but that of Ceylon, and that the commerce

itself was a mystery? The first author that mentions cinnamon in Ceylon is the Scholiast on Diony'sius Periêgêtes; at least I have met with no other, and I mention it to promote the inquiry.

The ten sorts in the Periplûs are,

1. Μοσυλλιτικὴ. *Mosyllitick.* P.

So called from the port Mosyllon[38], where it was obtained by the Greeks from Egypt, and whither they always resorted, from their first passing the Straits of Bab-el-Mandeb. It was the casia fistula; the same as we now have from Ceylon, and imported at Mosyllon directly from India, or from the Arabian marts on the ocean, which were rivals of the Sabêans. It is mentioned by several authors as the best sort, or inferior only to zigeir, and therefore could not be native: there is indeed cinnamon on the coast of Africa, but it is hard, woody[39], and of little flavour. The regio cinnamomifera of Ptolemy bears no other sort but this: he places this tract at the boundary of his knowledge, that is, between Melinda and Mosambique; and if it is in any way entitled to the name, it cannot be from its own produce, but on account of the importation of the spice from India; the traders who found it there, might suppose it native, in the same manner as the early writers speak of the Mosyllitic, and which (as has been already noticed) Pliny first mentions as imported. The Mosyllitic species is rarely called

[38] Bruce says it grew in the neighbourhood of Arômata, and does still grow in the mountains and the plains; that on the plains perhaps equal to that of Ceylon. Vol. vii. p. 329. He thinks it was carried hence to Ceylon.

[39] Seven different sorts Oriental, and two American, I have seen in the collection of Dr. Burgess; and an African species, which is not a bark, but a mere stick, with little flavour. It answers well to the character of σκληροτεραὶ.

cinnamon by the ancients, but casia only. Their cinnamon was exhibited as a rarity, like that of Marcus Aurelius before mentioned. Antíochus Epíphanes[40] carried a few boxes of it in a triumphal procession; and Seleucus Callinícus presented two minæ of this species, and two of casia, as the gift of a king to the Milesians. The casia, or modern cinnamon, was found formerly in Java, Sumatra, and the coast of Malabar; from the coast of Malabar it found its way to Africa and Arabia; but when the Dutch were masters of Cochin[41], they destroyed all the plants on the coast, in order to secure the monopoly to Ceylon; and none is now met with on the coast, but an inferior wild sort, used by the natives, and brought sometimes to Europe for the purpose of adulteration.

2. Γίζειρ, Ζίγειρ, Γίζι. *Gizeir*, *Zigeir*, *Gizi*. P.

This sort is noticed and described by Dioscorides, as already mentioned; and to his description I can only add, that zigeir, in Persian and Arabic, as I am informed, signifies *small*[42]. The smaller bark must of course be from the smaller and tenderer shoots, which is still esteemed the best; the harder and thicker bark is cut and made to roll up in imitation of this, but is inferior, though from the same plant. This at least is supposed; but I do not speak from authority.

3. Ἀσύφη. *Asuphè*. P. Asyphemo in Matthioli, p. 42. Perhaps for Ἀσύφηλος, cheap, ordinary.

[40] Athenæus, lib. v. p. 195. lib. ix. p. 403.

[41] The Dutch are accused of this by their rivals, as well as diminishing the growth of nutmegs, &c. in the Molucca Islands. But I observe in the account of Hugh Boyd's Embassy to Ceylon (Ind. Annual Register, 1799), an assertion, that the true cinnamon never grew any where but in Ceylon.

[42] I doubt this relation at the same time I notice it; but an inquiry might still be made, whether the Greek term *casia* be not a corruption of *gizi*.

This term, if not Oriental, is from the Greek ἀσύφηλος, asuphélos, signifying *cheap* or *ordinary;* but we do not find asuphè used in this manner by other authors : it may be an Alexandrian corruption of the language, or it may be the abbrevia tion of a merchant in his invoice.

4. Ἄρωμα. *Aroma.* D. P.

Aroma is the general name for any warm spice or drug; but it is twice inserted in a list of casias, and is therefore probably a species as well as the others. It would intimate an aromatic smell or flavour, and is possibly one of superior quality. It is remarkable that Moses uses the same term of sweet-scented cinnamon.

5. Μώγλα. *Môgla.* P.

A species unknown.

6. Μοτὼ. *Motô.* P.

A species unknown.

7. Σκληροτερὰ. *Sclerotera.* D. P. *Xylo Cassia, Wood Cinnamon.* D.

From the Greek Σκληρὸς, hard. This is a term which occurs frequently, and perhaps distinguishes the casia lignea (wood-cinnamon) from the casia fistula (cannelle or pipe cinnamon): it may signify any hard or inferior sort, in opposition to brittleness, which is one of the characters of the superior species. It is noticed by Fryar, p. 178. as growing on the Malabar coast at Carwar; and as a physician he gives a full account of it. It smells like cinnamon, but is as hot as cloves; the bark of the small branches is little inferior to the cannelle, &c.

8, 9, 10. Δέανα, Κιττὰ, Δάκαρ. *Dooaka, Kitta, Dakar.* P. Dakar is noticed by Dioscórides, Matthioli, p. 42. and Moto by Galen. F.

All unknown. But Salmasius, and other commentators, agree in supposing them all to be species of the same spice.

Under Cassia, in the Digest, are mentioned,

1. *Turiana vel Thymiama*, and
2. *Xylo Cassia.*

Turiana and Thymiama are expressions for the same thing in Latin and Greek—Incense. Kasia was mixed perhaps with incense in the temples, as well as other aromatic gums and odours. See Hoffman in Thymiama. But Dr. Falconer supposes these not to be different species of casia, or mixtures with it, but simply thus and thymiama; which, however, xylo cassia seems to contradict. He thinks also, "that turiana may be the "laurus cassia which grows in Spain, on the river Turia or "Guadalaviar."

"Floribus et roseis formosus Turia ripis."
Claudian de Laudibus Serenæ, 72.

These are the ten sorts enumerated in the Periplûs[43]. Professor Thunberg, who visited Ceylon in his voyage from Batavia, reckons ten sorts likewise. Four of nearly equal value and excellence; three that are found only in the interior above the Ghauts[44], in the government of the king of Candi; and

[43] Two other sorts may be collected from Galen; Arebo, and Daphnite. Larcher, Herod. vol. iii. p. 345.

I use the term improperly, but Ceylon partakes of the nature of the continent—the coast is a level, the interior is high and table land. All above the mountains is still possessed by the king of Candi; the Dutch had, and English have, only the coast.

three which are not worth gathering. The most remarkable which he mentions are:

The rasse [45] or penni-curundu, honey cinnamon, and capuru curundu [46], or camphor cinnamon, from the root of which camphor is distilled: this last is found only in the interior. The cinnamon for the European market was collected in the woods by the natives employed in the Dutch service, but has since been planted on the sandy downs on the coast. These plantations, besides their convenience, are so thriving, that the practice is likely to be continued. Can I conclude this account without observing, that this rich and valuable island is now in the possession of the English; and without a prayer, that the commerce may be conducted on more liberal principles, and the natives treated more generously by them than by their predecessors? The knowledge which the ancients had of this island is treated at large in the Sequel to the Periplûs; and it is to be hoped that the present governor, Frederick North, whose mind is stored with ancient knowledge, and whose attention is alive to modern information, will communicate his researches to the public.

I have only to add, that the Sanskreet names of this spice are Savernaca and Ourana, as I learn from the Asiatick Researches, vol. iv. p. 235.; and that Salmasius mentions Salihaca as the Arabic appellation, which he derives from the Greek Ξυλικὴ, lignea, or woody (p. 1306.), but which, if I did not pay great respect to his authority, I should rather derive from Salikè, the Greek name of the island in the age of Ptolemy.—I have now

[45] See Knox's History of Ceylon, p. 16.

[46] Baldæus mentions curendo-potto curendogas, (p. 822. Churchill, vol. iii.) but nothing appears in his work to add much to the observations here collected.

only to request that this detail, too prolix for the work, may be accepted by the reader, not as the natural, but the classical history of cinnamon.

38. Κασσίτερος. *Tin.* P.

Tin is mentioned as an import into Africa, Arabia, Scindi, and the coast of Malabar. It has continued an article of commerce brought out of Britain in all ages, conveyed to all the countries on the Mediterranean, by the Phênicians, Greeks, and Romans, and carried into the Eastern Ocean, from the origin of the commerce. It is only within these few years it has found its way into China in British vessels, where it is now become an article of such magnitude, as greatly to diminish the quantity of specie necessary for that market.

39. Καττυβορίνη, Πατροπαπίγη, Καβαλίτη. *Kattuboorinè, Patropapigè, Kabalitè.* Peripl. p. 28.

Different species of nard. See Νάρδος. P.

40. Καυνάκαι απλοΐ ὲ πολλὲ. *Kaunakai.* P.

Coverlids plain, of *no great value* (or, according to another reading, *not many*), with the nap on one side. Hesychius and Phavorinus, cited by Hudson.

41. *Ceraunium.* D. A gem.

Salmasius says there are two sorts:

1. A pure chrystal.

2. Another red, like a carbuncle.

He thinks the chrystal to be the true ceraunium; and that Claudian is mistaken when he writes,

Pyreneisque sub antris
Ignea fulmineæ legere Ceraunia nymphæ.

42. Κολανδιόφωντα. *Kolandiophonta.* P.

Large ships on the coast of Coromandel, in which the natives traded to Bengal and Malacca. They had vessels also called sangara, made of one piece of timber, which they used in their commerce on the coast of Malabar. The monoxúla of Pliny were employed in bringing the pepper down the rivers to the coast. Lib. vi. 23.

43. Κοράλιον. *Coral.* P.

44. Κοστος[47]. *Costus Costum.* D. P.

Is considered as a spice and aromatic by Pliny, lib. xii. c. 12. It is called radix, *the root*, pre-eminently, as nard is styled *the leaf*. Costus being, as we may suppose, the best of aromatic *roots*, as nard or spikenard was the best of aromatic *plants*. This supposition explains a much-disputed passage of Pliny. Radix et folium[48] Indis est maximo pretio: the (root) costus, and the (leaf) spikenard, are of the highest value in India. Radix costi gustu fervens, odore eximio, frutice alias inutili: the root of the costus is hot to the taste, and of consummate fragrance; but the plant itself, in other respects, without use or value. It is found at the head of the Pattalênè, where the Indus first divides to inclose the Delta; of two sorts, black and white, the

[47] It is worthy of remark, that in the enumeration of gifts made by Seleucus Callinícus to the Milesians, there should be this distinction:

Frankincense - -	10 talents.
Myrrh - - -	1 talent.
Casia - - -	2 pounds.
Cinnamon - - -	2 pounds.
Costus - - -	1 pound.

The reason is evident; frankincense and myrrh were procurable in Arabia, which bordered on his own kingdom. Casia, cinnamon, and costus, were East India commodities. See Chishull, Antiq. Asiat. p. 71.

[48] But *the leaf* is applied pre-eminently to the betel in India at this day. See Herbelot in voce. Son nom le plus commun est Betré ou Betlé, dont le premier se prononce aussi barra, qui signifie chez les Indiens, en general la feuille de quelque plante, et qui s'applique par excellence à la feuille de Tembul, en particulier.

Pliny has applied the leaf *par excellence* to the nard, and then confounded several properties of the betel with it. See Νάρδος.

black is the inferior sort, and the white the best. Its value is sixteen denarii[49], about twelve shillings and eight pence a pound. —Thus having discussed the costos or root, he proceeds to the leaf or plant: De folio nardi plura dici par est; but of this hereafter. It is here only mentioned to give the true meaning of the passage.

This root is said, by Salmasius, to grow in Arabia as well as India; and I do not find that it has acquired any European name, though it was formerly much used in medicine, and called the Arabian, or true costus. It is confounded by Gothofred, first with costamomum, which he derives from Mount Amanus, and secondly, with cardamomum. (See Salm. p. 400. & seqq.) I have supposed that amomum, as it is found in cinn-amomum, carda-momum, and cost-amomum, implies the warmth and gentle pungency of an aromatic; for the amomum itself, if we know what it is, is of a hot, spicy, pungent taste. (Chambers's Dict. in voce.) But Salmasius and Hoffman seem to trace it to a Greek origin (ἀμωμὸς, inculpatus), and to signify unadulterated. They apply it likewise to momia or mumia, because the amomum was particularly used to preserve the body from putrefaction. It was found in India and Syria, but the best in Arabia (imported?). The Arabian is white, sweet, light of weight, and fragrant; the Syrian is heavier, pale, and strong scented. Gothofred, from Isid. xvii. 9. Dioscorid. lib. i. c. 14. Plin. i. 2. and xii. 24. Dioscorides says it grows in Armenia, Media, and Pontus, c. 14.; but the whole account is very dubious; all speak of its warmth and pungency; but let us apply this to the costus, which, in regard to its unadulterated state, and its qualities, is still much ques-

[49] The numbers in Pliny are dubious.

tioned: its properties are—"I. Fragrance: Odorum causa un-
" guentorumque et deliciarum, si placet etiam superstitionis
" gratia emuntur quoniam thure supplicamus et costo. Plin.
" xxii. 24. Costum molle date et blandi mihi thuris odores.
" Ure puer costum Assyrium redolentibus aris. Propert. lib. iv.
" Πλειστην εχων και ηδειαν οσμην' Dios.—II. Pungency; both costus
" and costamomum are said to be of a warm, pungent quality:
" Πλειστης δε της δριμειας και θερμης μετεχει ποιοτητος και δυναμεως.
" Galen. Gustu fervens, Pliny.—It is mentioned in the Geo-
" ponica, as one of the ingredients for making the spiced wine,
" called πανακεια. Lib. vii. c. 13. But the best writers on the
" costus of the ancients think it is not ascertained." F. F. Pseu-
docostus nascitur in Gargano Apuliæ monte.—Of the costus brought from the East Indies there are two sorts, but seldom more than one is found in the shops, costus dulcis officinarum: this root is the size of a finger, consists of a yellowish woody part inclosed within a whitish bark. . . . . the cortical part is brittle, warm, bitterish, and aromatic, of an agreeable smell, resembling violets or Florentine orris. New Dispensatory.—It always contracts a bitterness, and grows black by keeping, which probably accounts for the white being more valuable (as Pliny says) because it is fresh. M. Geoffroi, a French academician, mentioned under this article in Chambers's Dictionary, considers it as the European elacampane root, which, he asserts, when well fed and prepared, has the properties of the Indian aromatic.

Costus corticosus, bark costus, has a scent of cinnamon.

45. Κύπερος. P. *Cyperus.*

An aromatic rush. (Plin. xxi. 18. Matthioli in Dioscor. p.

26.) It is of use in medicine. The best from the Oasis of Ammon, the second from Rhodes, the third from Thrace, and the fourth from Egypt. It is a different plant from the Cyprus, which comes from India. See Hoffman. Chambers. Stuckius makes it Sonchet. He cites Dioscorides, Pliny, Galen, Mathiolus, and Scaliger. Curcuma Zurumber.

Λ

46. Λάδανον.[50]. *Ladanum.* D. P.

A gum or resin, from a plant called leda, lada, or ledum, a species of cistus. It is of a black colour, from Arabia; the East India sort is very heavy, and like a grit-stone in appearance. Dr. Burgess informs me that it is adulterated with pitch from Pegu. It is collected in Crete from the beards of goats. Plin. xxvi. 8. And Tournefort saw it obtained from the thongs of whips lashed over the plants in the same island. It is likewise obtained by a bow-string bound with wool, to which the lanugo adheres. F.

47. Λάκκος χρωμάτινος. *Laccus. Coloured Lack.* D. P.

Is a gum adhering to the small branches of trees, supposed to be deposited by an insect. When taken off and melted it is reddish, formed into granulated seed, in which form it is used as lack for japanning; or into shell-lack for sealing-wax. Pomet. b. viii. p. 200.

A dye of the red purple (according to Ramusio, pref. to the

[50] Herod. lib. iii. p. 253. where he says, it is collected from goats' beards, a most fragrant, odorific gum. See Larcher, Herod. tom. iii. p. 350.

Periplûs, *lacco de tingere)*; but Salmasius, Plin. Exercit. p. 1160, says it is a cloth of this colour.

48. *Laser. Benzoin.* D.

" This appears to be the silphium found in Syria, Armenia, " and Africa. Dioscor. iii. 79. Laser est liquor seu lacryma, " Græcis λασερος, Latinis laser nominatur. Matthioli, Dios. in " voce. That is the inspissated juice. The stalk was called " silphium; the root, magugdaris; the leaves, maspeton. " Theophrast. vi. 3. The Σιλφιε καυλος καὶ οπος are mentioned " by Hippocrates even as articles of food, and said to be taken " largely by some, but with caution, because it was apt to " remain long in the body of those unaccustomed to it. " Theophrastus mentions the stalk as food; Apicius states it " among the condiments of the table; Porcus lasaratus, hœdus " lasaratus. Perfumes were formerly used in England with " meat; the nobility were made sick with the perfumed viands " of Cardinal Wolsey." F. F.—The country most famous for producing it was Cyrênè in Africa, where it was so much a staple commodity, that the Cyrenian coins were marked with the silphium. It is now brought from Siam and Sumatra; is used in medicine and cosmetics. See Chambers in voce, and Gothofred, who cites Columella, vi. 17. Isid. xvii. 9. It is vulgarly called Gum Benjamin. Pliny mentions it inter eximia naturæ dona, xxii. 23.

49. Λέντια. *Linen, from the Latin lintea.* See Ιματισμός. P.

50. Λίβανος. *Frankincense*[51]. D. P.

51. Λίβανος ὁ περατικὸς. *From beyond the Straits of Bab-el-Mand-eb.* P.

[51] Olibanus, oleum Libani.

A gum or resin sufficiently common in Europe still; originally introduced from Arabia only, and used by the nations on the Mediterranean under the denomination of thus and libanus which are synonymous. Its name is derived from לבן, laban, white, Heb. and לובן, loban, Arabic, because the purest sort is white[52] without mixture. See Bochart, tom. i. p. 106. Hence libanus and the corrupt olibanum. M. Polo calls it *encens blanc*. Bergeron's Col. p. 153. It was chiefly brought from Hadramaut or Sagar, a tract of Arabia on the ocean. The best sort is likewise in small round grains called χόνδρος, from the Arabic כנדר, chonder. Bochart, ibid. But Niebuhr says, that the libanus of Arabia at present is greatly inferior to that brought from India, as being foul, mixed with sand and stones; he adds also, that the plant which produces it, though cultivated at Keschin and Schahr (Sagar) is not native, but originally from Abyssinia. See Niebuhr, Arabia, tom. i. p. 202. ii. p. 131. in which opinion he is supported by Bruce. See Michaelis, Question xxix. The Arabians paid a thousand talents of frankincense by way of tribute to Persia. Plin. xii. 17. Herodot. When Niebuhr was in Arabia, the English traders called the Arabian sort incense of frankincense, and the Indian or better sort, benzoin, and the worst benzoin was esteemed more than the best incense. The Arabs themselves preferred the Indian to their own, and called it bachor Java, either because it grew in that island, or was imported from Batavia. See also d'Anville, Georg. Anc. tom. ii. p. 223.

52. Λιθίας Ὑαλῆς πλείονα γένη καὶ ἄλλης Μυρρίνης τῆς γενομένης ἐν Διοσπόλει. *Glass and Porcelane made at Diospolis.* P.

[52] It grows yellow by keeping. Dr. Burgess has many specimens of Arabian libanus.

1st. Lithia Hyala. Several sorts of glass, paste, or chrystal. See article Λιθία διαφανής.

2d. Λιθία Μυῤῥίνη. P.

Which Salmasius says, ought always to be written morrina, not myrrhina, myrrina, murrhina, or murrina. And he maintains that it is certainly the Oriental porcelane. It is here evidently joined as the adjective to Λιθία, as it is afterwards (p. 28. Peripl.) mentioned with Λιθία ὀνυχίνη, and connected in a similar manner, Λιθία ὀνυχίνη καὶ Μυῤῥίνη, where it is specified as brought down from the capital of Guzerat, Ozênè, (Ougein,) to the port of Barygáza or Baroach. All this seems to confirm the opinion that it was porcelane procurable in India at that time, as it now is; and that it was brought into Egypt by the ships that went to India. But what is more extraordinary is, that it was imitated in the manufactories of Diospolis in Egypt, just as our European porcelane is now formed upon the pattern of the Chinese.

But in opposition to this opinion, Mr. Dutens, under the article Sardonyx, supposes that stone employed and cut, to form the Murrhina, on account of its beauty, and the great number of strata in a small compass; that the Sardonyx was formed into small vases, as well as various sorts of agates, there can be little doubt; but why after cutting, it should lose the name of sardonyx, and take that of murrhina, is still to be explained; and how they should be baked in Parthian furnaces, or imitated at Diospolis, must likewise be inquired. The best argument in favour of Mr. Dutens' opinion is, the connecting it with ὀνυχίνη in the invoice of the Periplûs, Λιθία ὀνυχίνη καὶ Μυῤῥίνη, and Lampridius likewise says of Heliogábalus, as cited

by Gesner, myrrhinis et onychinis minxit. These instances are so strong, that if the other qualities attributed to this precious commodity could be accounted for, and rendered consistent, the suffrage of a writer so intelligent and well informed ought to prevail. Gesner produces a variety of authorities from Jo. Frid. Christius, which confirm this opinion of Mr. Dutens, or at least prove it a fossil. The principal one is from Pliny, xxxvii. 2. and xxxiii. proem. Chrystallina et myrrhina ex eadem terra fodimus, so that it is positively assserted to be a fossil from Karmania [53]; while the colours assigned to it, of purple, blue, and white, with the variegated reflexion from the mixture, suit much better with porcelane. Martial styles it myrrhina picta, xiii. p. 110, and notices it as capable of containing hot liquors, a property in which it seems opposed to glass or chrystal.

Si calidum potes ardenti murra Falerno
Convenit, et melior fit sapor inde mero.

The *sapor* here, and the *odor* mentioned by others, suit the sardonyx no better than porcelane; but the testimony of Propertius is as direct to prove it factitious, as that of Pliny to prove it a fossil.

Murreaque in Parthis pocula cocta focis, iv. 5. 26.

And to resist this evidence, Christius contends, that the Murrea are not the same as Myrrhina; but an imitation like the Diospolite manufactory. I am by no means qualified to decide in this dispute, where the difficulties on either side seem unsurmountable; but as my own opinion inclines rather in favour of

[53] The best porcelane, next to the Chinese, was still made at Gomeroon in 1670, as noticed by Fryar, p. 332. Its basis or petuntze was a white marble. And Gomeroon is the district of Moghostan, which joins to Karmania.

porcelane, I will state my reason plainly, and leave the determination to those who are better informed.

Porcelane, though it is factitious, and not a fossil, is composed of two materials which are fossil, the petuntze and the clay. The former, the Chinese call the bones, and the latter the flesh. The place of petuntze is supplied, in our European imitations, by flints reduced to an impalpable powder; and the vitrifaction of the petuntze or the flints in the furnace, gives to porcelane that degree of translucency it possesses. The petuntze is supposed to be found of late in England. Now it is a well-known fact, that the ancient composition of porcelane in China was said to be prepared for the son by the father, and to lie buried for several years before it was ready for the furnace, and the inferiority of the modern porcelane is thought, by the Chinese connoisseurs, to arise from the neglect of this practice. May not this have given rise to the opinion that the murrhina were a fossil production?

Another consideration arises from the words employed by Pliny to express the murrhine vessels, which are *capis* and *abacus*, signifying, if Hardouin be correct, literally, the cup and saucer, and the capis, which was a vessel used in sacrifices, was regularly a vas fictile.

But the last circumstance I shall mention is, the size of that murrhine vessel mentioned by Pliny, which contained three pints (sextarios). Can it be supposed that a sardonyx was ever seen of this size? he adds indeed afterwards, amplitudine nusquam parvos excedunt abacos, which, to make it consistent, must be qualified with the exception of the former vessel that contained three pints. He has other particulars which lead us

again to porcelane, crassitudine raro quanta dictum est vasi potorio; and in another passage, humorem, putant sub terra calore densari, which he certainly applies to the concoction of a fossil, but which bears no little resemblance to the maturing of the materials before mentioned.

After all, if it was a gem, it is astonishing that the sardonyx should be mentioned by no ancient author, as appropriated to this purpose. If it was factitious, it is equally strange, that nothing stronger should appear on that side of the question, than the capis of Pliny. The distinction could not have been mistaken. The country he assigns to the production is Karmania, in the kingdom of Parthia, and that it came from Parthia[54] into Egypt, to the countries on the Mediterranean, and to Rome, seems evident from a variety of authorities; and that it might well do, if we consider that Parthia communicated with India by means of the Persian Gulph, and possibly on the north with China[55] itself, by means of the caravans. The mention of Karmania by Pliny, as the country where the murrhina were obtained, favours the supposition of procuring these vessels from India; for the communication of Karmania with Scindi and Guzerat is almost immediate, and certainly prior to the navigation from Egypt to that coast. But in Guzerat they were obtained, when the author of the Periplûs was employed in that trade; and their arrival at the market of Baroach, from

[54] The kingdom, not the province, as we may see from a former citation noticing Karmania.

[55] That there was an intercourse with the Sêres on the north of the Himmalu mountains, and that exchange of commodities took place at some frontier, like that between the Russians and Chinese at Kiatcha, is evident from Ptolemy, Pliny, and the Periplûs. Whether the Séres were Chinese, or an intermediate tribe between India and China, is not material in the present instance.

the interior of India, may induce us to suppose, that they came into India from the north.

The immense value of these vessels at Rome might well arise from their scarcity. They were first seen there in the triumphal procession of Pompey; and it must be observed that Pompey returned from the shores of the Caspian Sea. They were afterwards introduced into use at the tables of the great, but of a small size and capacity, as cups for drinking. Afterwards one which held three sextarii or pints, was sold for seventy talents[56], and at length Nero gave three[57] hundred for a single vessel. The extravagance of the purchaser might, in this instance, enhance the price, but the value of the article may be better estimated by the opinion of Augustus, who, upon the conquest of Egypt, selected out of all the spoils of Alexandria a single murrhine cup for his own use. Now, therefore, if the murrhine was porcelane, it may be a piece of information acceptable to our fair countrywomen, to know that Cleopatra did not indeed sip her tea, but drink her Mareotick wine out of china.

I have not been able to consult the work of Christius, but take the account of his argument from Gesner, and I refer the reader for further information to Gesner in voce, to Chambers's Dictionary, to Salmasius, Plin. Exercit. and to an express dissertation in the Volumes of the Academy of Belles Lettres, which I have formerly seen, but have not now an opportunity of consulting. I recollect that it is in favour of the opinion, that murrina and porcelane are the same.

[56] £. 13,562.
[57] £. 58,125.

The sums seem as immoderate for a cup of sardonyx as for porcelane.

53. Λιθία διαφανὴς. P.

A transparent substance of stone or pebble, but it is probably here the glass made of stone as clear and bright as chrystal, and the same as Ὑαλὴ, Hyalè mentioned before. Salmasius (p. 1096.) has a very curious quotation from the Scholiast on Aristophanes ad Nubes, Act ii. scene 1. "We call Hyalos "(he says) a material made of a certain plant burnt, and "wasted by fire so as to enter into the composition of certain "[glass] vessels. But the ancients appropriated the term "hyalos to a transparent stone called kruon, or chrystal."—This perfectly accords with the manufacture of glass, composed of sand, or flints, and the ashes of a plant called kali or vitraria in Narbonne. Salm. ibid. and Chambers in voce. But glass has its name from glastum[58] or woad, *the blue dye*, because common glass was of that colour, but the transparent stoney glass [flint glass] here mentioned seems to take its name [διαφανὴς] transparent, and [Ὑαλὴ] chrystalline, from its superior purity and imitation of the chrystal. The whole passage in the Scholiast is interesting, and worth consulting. Nub. act. ii. scene 1. l. 766. Τὴν Ὕαλον λέγεις.

"The hyalos or chrystal is formed circular and thick for this "purpose [the purpose of a burning glass], which being rubbed "with oil and warmed, they bring near the wick of a lamp and "light it:" [it was rubbed with oil probably to clean it, but why warmed does not appear.] "Homer knew nothing of the

[58] See Vossius ad Melam, Varior. ed. 1722, who cites Pliny, lib. xxii. c. 1. Simile plantagini glastum in Gallia, quo Britannorum conjuges nurusque toto corpore oblitæ. Vossius adds, apud Cambro-Britannos isatidis proventus glas appellatur, et cæruleum colorem. Herba isatis is woad.

"chrystal, but mentions amber:" [true, for with Homer κρύσταλλος is always ice.]

Hence it appears that chrystal was known to Aristophanes, and the application of it to the purposes of a burning glass; that glass was known in the time of the Scholiast, and that Homer knew nothing of either. The use of a pebble or chrystal, however, to kindle fire, is known at least as early as the writings of Orpheus περὶ λίθων. And if the writings attributed to Orpheus be really the work of Pythagoras, or a Pythagorean, as Cicero supposes, De Nat. Deorum, the knowledge of this property is still very old. But Tyrwhitt has overset all the antiquity of this Orpheus, and brings the poem Περὶ λίθων down to the lower empire—to Constantius, or even lower. See Præf. p. 10. et seq.

Why glass was so late before it was introduced to the knowledge of the Greeks and Romans, or other nations on the Mediterranean, seems extraordinary: but de Neri (Art de la Verrerie, Paris, 1752) informs us, that glass is not mentioned in the Old Testament, and appears in the New only, in the epistles of St. Paul, St. James, and the Revelations; that of the Greeks, Aristotle is the first who makes express mention of it, and assigns the reason why it is transparent, and why it will not bend, but in a dubious passage; in Rome it was but little known before the year 536, U. C. and was not applied to the use of windows till near the reign of Nero. Seneca, Ep. xc. This seems the more extraordinary as the art of making glass was known in Egypt in the earliest times. The mummies of the Catacombs near Memphis are ornamented with glass beads; and it has lately been discovered that the mummies of the Thebaid are decorated with the same material; which carries

the invention much higher, possibly to 1600 years before our era (Ripaud's Memoir). If this be a fact, we arrive at the Dióspolis of Upper Egypt, the Thebes of Homer for the origin of the invention, but the Dióspolis of the Periplûs is in the Lower Egypt on the Lake Mensaleh, though the name and site is much disputed, as we learn from d'Anville, (Egypte, p. 92,) but at Tennis on that Lake, the French found remains of brick, porcelane, pottery, and glass of all colours, (Memoirs, p. 223,) and at the Lower Diospolis, we find the same substances noticed by the Periplûs with the addition of wine, dipse, and an imitation of the murrhine vessels. Strabo informs us, that he conversed with the manufacturers of glass at Alexandria, who told him that there was a hyalite earth; which of necessity entered into their compositions of a superior sort, and particularly in the coloured glass, but that still greater improvements had been made at Rome, both in regard to colours and facility of operation (lib. xvi. p. 758). The same manufacture was continued afterwards at Tyre and Berûtus; and at Tyre it was found by Benjamin of Tudela, as late as the year 1173. (Bergeron, p. 17.) At Rome it was certainly known before the second Punick war, because Seneca mentions rusticitatis damnant Scipionem quod non in Caldarium suum specularibus diem admiserit, but this was in the bath of Sudatory; in houses it was introduced later, vitro absconditur Camera, Ep. 86. et quædam demum nostra memoria prodisse scimus ut specularium usum perlucente *testa* clarum transmittentium lumen; but *testa* does not quite express *glass*. Martial mentions glass applied to the hot-house or green-house, lib. 8; and drinking glasses he calls chrystalla (lib. x. 59, Ed. Fitzger.). Pliny also writes, maximus tamen honos est in candido trans-

lucentibus, quam proximâ chrystalli similitudine, usus vero ad potandum argenti metalla et auri pepulit. Lib. xxxvi. 26. From which we learn, that the Romans used drinking glasses as we do, in preference to gold or silver, and that the material was not *vitrum*, but the white flint glass like chrystal, as ours is. Gibbon has observed, that Augustus knew not the comfort of clean linen or glass windows, but glass windows were within a century after his time adopted in Rome. In England we are indebted to Theodórus, archbishop of Canterbury, who introduced glass windows, music, geometry, and classical learning into England about the year 670. Beda, Ec. Hist. lib. iv. c. 2.

That clear or flint glass assumed its name from Ὑαλη, chrystal, is still more apparent from a passage of Diodor. Sic. lib. ii. p. 128. ed. Wessel. where mention is made of both sorts, the factitious and native Ὕελον, as he writes it. The glass coffin of Alexander is called Ὑαλίνη, by Strabo, lib. xvii. p. 794. See Herod. iii. p. 206. et Wessel. not. et Diod. ii. p. 15.

54. Λίθος καλλεανὸς. καλλαϊνὸς. P. *Callain Stone.*

The Lapis Callais or Callainus of Pliny is a gem of a pale green colour found in Caucasus, Tartary, and the best sort in Karmania; it is called an emerald by Ramusio, and it was possibly one of those substances which, Dutens says, the ancients mistook for the emerald, and which he calls Peridot, Spath, Fluor, and prime d'Emeraude, the distinctions of which are attended to by few, except jewellers or collectors; others think Callais and Callainus two distinct stones; the Peridot is a pale green, inclining to yellow. Id.

Salmasius writes it Callinus, and says it may be a pebble or agate, inclosed [59], and that it is loose and rattles; this Pliny calls Cytis, xxxvii. 56. Hard. Cytis circa Copton nascitur candida, et videtur intus habere petram quæ sentiatur etiam strepitu.

55. Λίθος ὀψιανὸς. P. *Opsian Stone.*

Probably serpentine or hæmatite, in the opinion of Dr. Burgess. Salmasius objects to Pliny for calling it opsidian, or saying it was discovered by Opsidius. In Greek it is always opsian, and is a green stone very dark, approaching to black. It was found in the islands of Ethiopia; and from taking a high polish was used by the emperor Domitian to face a portico, so that from the reflection he might discover if any one was approaching from behind.

The opsidian stone, mentioned by Pliny, is very dark but translucent, and a factitious sort of it which he likewise notices, seems very much to resemble the material of which our brown or red tea-pots are composed. Totum rubens, atque non translucens, hæmatinon appellatum. See discourse in the Memoirs of the Academy of Sciences. The specimens of this stone, which I have seen, are so dark that the green cast can only be discovered by holding them in a particular position. The closeness of their texture seems to admit of any degree of polish that the artist may be disposed to give them.

The specimen which I saw was brought from Egypt by a Gentleman who had visited the country: it was esteemed such in Egypt, and acknowledged for opsian by several of the most

[59] But he mentions it as a topaz, and says, blue, why not a turquoise? which is still a favourite stone in the East. there are topazes of two different colours; if

curious observers at Rome; and it exactly answers the description of Isidorus, adduced by Hardouin on this passage: est autem, niger, interdum et *virens*, aliquando et translucidus, crassiore visu. And again: obsidius lapis niger est, translucidus et vitri habens similitudinem. Isidor. lib. 16. Orig. cap. 15. and cap. 4. That opsian and opsidian have been confounded, or applied to different substances, may be allowed; but the opsidian of Pliny came from Æthiopia, and so did the opsian of the Periplûs; and whatever be the name, the same fossil seems to be intended. How it may be applied by others, concerns not the present question; and if the etymology be Greek (from ὄπτομαι or ὄψις), it might be applied to any polished stone which reflects images. It is used by Orpheus under opallius, lin. 4. in what sense I pretend not to determine; but his classing it under the opal, which is clouded, and specifying its pitchy colour (καὶ πίτυος δάκρυσι λιθάμενον ὀψιανοῖο) and stone-like appearance, petrified, as he supposed, from the exudation of the pine, makes me suppose it the same as Pliny describes, when he mentions the imitations of it and the stone itself: In genere vitri et obsidiana numerantur, ad similitudinem lapidis quem in *Æthiopia* Obsidius invenit, nigerrimi coloris, aliquando et translucidi crassiore visu, atque in speculis parietum pro imagine umbras reddente. M. Dutens (p. 66.) says, it is a volcanic glass, such as is found about Mount Etna and Mount Vesuvius; but instead of solving the difficulty, about which, he says, so many learned men have disputed in vain, this only adds to it; for if it was found in Italy and Sicily, why should it be sought for in Ethiopia, almost at the mouth of the Red Sea, and imported from Egypt at a prodigious expence? Lord Valentia, in a survey that he has lately made of the western

coast of the Red Sea, has found the bay to which the opsian stone is attributed, about eighty miles below Adooli; and it is not impossible that some other publick spirited Englishman may visit it again, and determine what is the opsian stone, by some native mineral production still to be discovered on the spot.

56. Λύγδος. *Lygdus.* P.

A beautiful white marble, or rather alabaster, used to hold odours; Ramusio. Salmasius says, an imitation of this alabaster[60] was formed of Parian marble, but that the best and original lygdus was brought from Arabia, that is, as noticed in the Periplûs, from Moosa. Salm. p. 59. See Oynx.

57. Λύκιον. *Lycium.* P.

A thorny plant, so called from being found in Lycia principally. A juice from which was used for dying yellow, mentioned by Pliny and Dioscórides. The women also, who affected golden locks, used it to tinge their hair. Salm. p. 1164. Why this should be sought in Scindi, if it was found in Lycia, does not appear. It is found now in the shops by the name of the yellow-berry, box thorn, grana d'Avignon. Dr. Burgess. Lycium, in Pliny, is a medicine derived from the Garyophyllon, lib. xii. c. 15. Hardouin, who adds Lycium porro quid sit ignorari etiam a peritis herbariis pronunciat Anguillara, lib. de Simplic. pars iii. p. 62. Nos Clusio credimus esse Hacchic Goanorum.

58. Λωδίκες. *Lodices.* P.

Quilts or coverlids.

ἃ πολλαὶ ἁπλοῖ καὶ ἐντόπιοι.

Coverlids plain and of the country manufacture at Moosa.

[60] Unguenta optime servantur in alabastris. Plin. lib. xiii. p. 3.

M

59. Μαργαρίται, p. 84. D. P.

Pearls [61], fished for near Cape Comorin, where the fishery still continues, or at the Lackdive islands, formed a great article of commerce on the coast of Malabar.

60. Μαλάβαθρον. *Malábathrum.* D. P. *Betel.*

In order to avoid the confusion of ancient authors, we must consider this article under two heads:

First, as an Unguent, Odour, or Perfume;

Secondly, as the Betel.

First, as an unguent or perfume, it is certainly assumed by Horace:

Coronatus nitentes
Malobathro Syrio capillos. Hor. lib. ii. ode vii. 89.

and by Pliny [62] when he makes it, with all the fragrant odours of the East, enter into the royal unguent of the kings of Persia. (Lib. xiii. c. 2.) And again (lib. xii. c. 12, or 26 Hardouin,) where he mentions the nard of Gaul, Crete, and Syria; the last agreeing with the Syrian odour of Horace, and almost ascertaining the error of confounding spikenard with the betel. So likewise (lib. xii. c. 59.) Hard. Dat. et malobathron Syria ex qua exprimitur oleum ad unguenta; but in the same chapter

[61] Pearls sold in India for three times their weight of pure gold. Ar. Ind. c. viii. in fine.

[62] It appears by Pliny, lib. xiii. c. 2. that almost all the fragrant odours of the East entered into the composition of their unguents. In the royal Persian unguent no less than twenty-six odours are enumerated, and among them the malóbathron, which is not so properly an odour as a stimulant, if it be the betre. But it is frequently confounded with the spikenard, the first of odours, which is pre-eminently called folium, or *the* leaf, in opposition to costus, or *the* root. But the arecka-nut being wrapt in the betel *leaf* has probably given rise to the mistake. See Pliny, lib. xii. c. 12. where the hadrosphærum, mesosphærum, microsphærum—all distinctions of the betel, are falsely applied to the spikenard.

he says, sapor ejus nardo similis esse debet sub linguâ; and (lib. xxiii. c. 48. Hard.) oris et halitûs suavitatem commendat linguæ subditum folium: in which sense, as Dioscórides also testifies, it is a masticatory, and not an unguent. Added to this, he applies the titular distinction of hadrosphærum, mesosphærum, and microsphærum to the spikenard (lib. xii. 26. Hard.) which Salmasius, Matthioli, and almost all the commentators, agree in assigning specifically to the betel; and to the betel, betre, or petros, they are applied in the Periplûs. (p. penult.) The error of Pliny, and his fluctuation in making it both an unguent and a masticatory, arises from his considering the spikenard to be *the leaf*, κατ' ἐξοχὴν (which it is not, but a root), and not considering, or not knowing, that the betel is, above all others, *the leaf*, used with the areka-nut, and the constant masticatory of the Orientals from Malabar to Japan.

Secondly, that it is a masticatory is confirmed by Dioscórides; for he says (ὑποτίθεται δὲ τῇ γλώσσῃ πρὸς εὐωδίαν στόματος), it is placed under the tongue to sweeten the breath, and it has (δύναμιν τίνα εὐστομαχωτέραν) the virtue of strengthening the stomach. If any native of the East were at this day asked the properties of betel, no doubt he would specify these two particulars above all others. But it should seem that Disoscórides was aware of the confusion caused by mistaking the nard for the betel; for he commences his account by saying, that some believe the malabathrum to be *the leaf* of the nard, deceived by the similarity of the odour; but the fact is far otherwise. (See Matthioli, p. 40.)

The author of the Periplûs knew that Petros was the leaf, and that when the whole composition was made up together, it was called Malábathrum; for he mentions the method of

obtaining it by the Sêres from the Sêsatæ, and their exportation of it again. (p. ult.) We know likewise that the procuring it at the extremity of the East, is consonant to modern observation; for though it is used in India, it is indispensable in all ceremonies in Ava, Pegu, China, and the islands of Java, Sumatra, &c. It is now well known to consist of the areka-nut, the betel-leaf, a mixture of lime from sea-shells, and sometimes with the addition of odoriferous drugs. The areka-nut has the appearance of an oblate nutmeg, hard as horn, and when cut, resembling the nutmeg in its mottled appearance. Dr. Burgess informs me, that the unripe nutmeg is sometimes pressed, and an aromatic liquid procured, fragrant in the highest degree, which perhaps may have some relation to the perfumed unguent of the ancients. The betel is a species of the pepper-plant, and the lime is called chinam, the use of which turns the teeth black; and black teeth consequently, from the universality of the practice, are the standard of elegance in all those countries where the usage prevails. For the natural history of the ingredients, and the ceremonies attending the custom, I refer to Sir G. Staunton's Chinese Embassy, vol. i. 272.; Mr. Marsden's Sumatra, p. 242.; and Mr. Turner's Embassy to Thibet, pp. 285. 343.

The name of this masticatory varies in different countries, but its Arabick name is Tembul, Tembal, or Tambal; and from tamala, added to betrè or bathra, tamala-bathra is derived, and the malá-bathra of the ancients, according to the opinion of Salmasius.—"But Stephens (in voce) gives a different etymo-
" logy: Ferunt apud Indos nasci in ea regione quæ Malabar
" dicitur, vernaculâ ipsorum linguâ Bathrum, sive Bethrum,
" appellari, inde Græcos composita voce nominasse Μαλάβαθρον."

F. F. What adds to the probability of this is, that the coast was called Malè, till the Arabs added the final syllable. And let it not be thought fantastical, if we carry our conjectures farther east—to the country of the Malays, in the Golden Chersonese; for in that part of the world the custom is far more prevalent, and there the best ingredients are still procured. The Malays were not unknown, by report at least, to the Greeks; for Ptolemy has a Malai-oo-Colon (Μαλαίε κῶλον ἄκρον, p. 176.), not far from the Straits of Malacca, the country of the Malays.

From the practice of the natives, another circumstance occurs worthy of remark; for it is said, "Sinæ in mutuis visita-"tionibus folia betel manu tenent, ac cum Areka et calce in "patinis ligneis in benevolentiæ signum offerunt hospiti; dum "utuntur, primo parum Arekæ mandunt, mox folium betel "calci illitum, *exemptis prius nervis* ungue pollicis, quem prop-"terea longum atque acutum habent." Nieuhoff, pars ult. Legat. Batav. p. 99. F. F.—I owe this curious passage to the suggestion of Dr. Falconer, and I cannot help thinking that it corresponds with the expression in the Periplûs, ἐξινιάσαντες καλάμες τὲς λεγομένες Πέτρες; ex arundinibus illis quas petros appellant *nervis fibrisque extractis;* though applied to the making up of the composition, rather than the use of it.

The account of the ingredients must be left for the natural historians to develope; but the classical history of them, such as I have been able with the assistance of my friends to collect, has been drawn from Dióscorides, Pliny, Matthioli, Salmasius, Stuckius, and the other authorities cited, with much labour and attention; and if it contributes to remove the obscurity in which the question was involved, let it not be received as a

tedious discussion, but as the effort of an author, who was engaged in the inquiry, before he was aware that an acquaintance with natural history would become so material a part of his duty.

62. Μάκειρ. *Macer.* P.

An aromatic from India; the bark red, the root large. The bark used as a medicine in dysenteries. Plin. xii. 8. Salm. 1302.

63. *Margaritæ.* D. P. *Pearls.*

The Pearl Fishery is mentioned in the Periplûs, both at Bahrein in the Gulph of Persia, and at the Island of Ceylon; but I am obliged to Mr. Falconer for pointing out "the autho-"rity of Pliny, lib. ix. 35. or 54 Hard. and lib. vi. 22. or 24 "Hard.; the former of which is of importance, as marking out "not only the fishery at Ceylon, but at Perimoola, and the "Sinus Perimoolus." F. For the Perimoöla of Ptolemy is not far from the Straits of Malacca, and approaches (though not nearly) to the Sooloo Fishery of Mr. Dalrymple. Whether pearls are still taken in the Gulph of Siam or Cambodia, I am not informed, but they might well be brought thither from Borneo; and the information is highly interesting. In the same passage it is noticed by Pliny: Principium ergo, culmenque omnium rerum pretii, Margaritæ tenent. But it is not true that the pearl sold higher at Rome than the diamond; for, lib. xxxvii. c. 4. the diamond has the highest value; the pearl, the second; and the emerald, the third.

64. *Marucorum Lana.* D. *Wool of Marucori.*

The text is corrupt. Ramusio joins it with the following article, Fucus, which he reads Marucorum Succus; but what

what it means is not easily discoverable. Dr. Falconer, with great appearance of probability, supposes it to be the wool of the Thibet sheep, of which shawls are made.

65. Μάχαιραι. P.

Knives or canjars worn at the girdle.

66. Μελίεφθα χαλκὰ. P.

Brass[63] or copper, prepared, as Ramusio says, for vessels of cookery. But rather for ornaments of women, as bracelets, anklets, and collars. No usage of Μελίεφθα occurs elsewhere; but metals were prepared with several materials to give them colour, or make them tractable or malleable. Thus χολόβαφα in Hesychius was brass prepared with ox's gall to give it the colour of gold, and used like our tinsel ornaments or foil for stage dresses and decorations. Thus common brass was neither ductile nor malleable, but the Cyprian brass was both. And thus, perhaps, brass, μελίεφθα, was formed with some preparation of honey. Pliny uses coronarium possibly in reference to the same application of it as Hesychius mentions, and seems to use Cyprium in the sense of copper. Cyprium regulare is the best copper, and every metal is called regulare when purified, omne, purgatis diligentius igni vitiis, excoctisque, regulare est. And again Cyprium tenuissimum quod coronarium vocant, xxxiii. 9.

67. Μέλι καλάμινον τὸ λεγόμενον σάκχαρι. D. P.

Honey from canes. *Sugar.*

In Arabic, shuker, which the Greeks seem first to have met with on the coast of Arabia, and thence to have adopted the

[63] This article is very dubious.

Arabic name. It is here mentioned on the coast of Africa, where the Arabians likewise traded, and either imported it themselves from India, or found it imported; it was evidently not found in that age growing in Africa. The Sanskreet name of sugar is ich-shu-casa, and from the two middle syllables the Arabic shuka, or shuker. As. Research. iv. 231. See Du Cange, article Cannamele, Cannæ Mellis, mentioned by Albertus Aquensis, William of Tyre, and others, as introduced from the East into Cyprus, Sicily, &c. in their age.

68. Μελίλωτον. *Honey Lotus.* P.

The lotus or nymphæa of Egypt. The stalk contains a sweet and eatable substance, considered as a luxury by the Egyptians, and used as bread; it was sometimes carried to Rome, and the Periplûs makes it an article of importation at Barygáza. It appears also to have been used as provision for mariners; and if this was the favourite bread of Egypt, in preference to grain, Homer might well speak of it as a luxury and delicacy; but his lotus[64] is generally supposed to be the fruit of a tree, by our African travellers. Authors differ, some asserting that it is still common in the Nile, others saying that the lotus now found there has neither pulp nor substance.

69. Μέταξα. See Νῆμα Σηρικὸν. D. P.

70. Μακρότε θυμίαμα. D. P.

An incense called mocrotus or mocroton.

71. Μολόχινα. P.

Coarse cottons of the colour of the mallow. Others read Μοναχῆ, either single threaded or of one colour.

[64] See Rennel on Africa. Geog. of Herodotus.

Coarse cotton dyed of a whitish purple, and therefore called molochina from Μολόχη, *mallows*. Wilford, Asiat. Dissertation. vol. ii. p. 233.

Paolino interprets Molochina, tele finissime dipinti e richamente, p. 95. i. e. chintz. Muslins are said to derive their name from Mosul, because they were brought from thence by caravans into Europe. (Marco Polo, lib. i. c. 6.) But there is a distant resemblance between Molochina and muslins, and the Greeks had no soft sound of ch. If there is any name in the native language similar to either, we ought rather to seek for an Oriental derivation than a Greek one. At the same time it may be considered, that *purple* cottons might have as general a sale formerly, as *blue* Surats have now.

72. Μόλυβδος. *Lead.* P.

73. Μοτὼ. P.

A species of cinnamon. See Κασσία.

74. Μύρον. D. P.

Myrrh or oil of myrrh [65].

A gum or resin issuing from a thorn in Arabia, Abyssinia, &c. Bruce has given an account of the plant; he says it is originally from Africa, and that the Arabian myrrh is still an inferior sort. See Bruce, Chambers, and Salmasius.

75. Μυῤῥίνη. See Αἰθία Μυῤῥίνη.

Porcelane. See Gesner and Chambers in voce.

N

76. Νάρδος. D. P. *Nardi Stachys*, *Nardi Spica*, in the Digest. *Spikenard.*

[65] The African is best; the Abyssinian, Arabian, and Indian, worst. Dr. Burgess.

This article appears under another form, and as if it were a different article in the Digest, No. 3. The Nardi Stachys is No. 5, but under No. 3 we read

Folium
1. Pentasphærum.
2. Barbaricum.
3. Caryophyllum.

The two first of which may be interpreted in conformity to the authorities which follow: 1. Folium Pentasphærum, Betel. 2. Folium Barbaricum, spikenard; but the third is the *Clove*, and is not related to the other two folia or leaves, unless it were introduced into the rescript of the Digest, from the custom-house at Alexandria, because it was a compound of φυλλον, a leaf. Caruo-phullon, the *nut leaf*, is a name applied to the pink flower, because the sheath which encloses the flower is scolloped and jagged like the sheath of a nut. Whether this was transferred to the clove itself, on account of the angular points at the head of the *clove*, or nail; or whether to the plant, I am not able to determine. (See article Caryophyllon); but Νάρδος is the spikenard called Folium Barbaricum, because it was obtained at Barbarikè, the port of Scindi; and Folium Gangiticum, because it was likewise procured at the Ganges, that is in Bengal; Νάρδος γαπανικὴ also, as it appears in the Periplûs (p. 32.), by the general consent of the commentators, is read, Νάρδος Γαγγιτικὴ, and confirmed by the Periplûs itself, p. 36. by Pliny and Dioscórides.

No Oriental aromatic has caused greater disputes among the critics, or writers on Natural History, and it is only within these few years that we have arrived at the true knowledge of

this curious odour, by means of the inquiries of Sir William Jones and Dr. Roxburgh.

Their account is contained in the fourth volume of the Asiatic Researches, and Dr. Roxburgh was so fortunate at last as to obtain the plant in a state of perfection, of which he has given a drawing that puts an end to all controversy on the subject.

The nard has the addition of spike from the Latin spica, an ear of wheat, which, according to Dr. Roxburgh's drawing, it perfectly resembles. And this adjunct is found also in its Arabic name, sumbul; and in its Shanskreet appellation, Jatámánsí; as also its Persic title khústah, all signifying *spica*.

Sir William Jones, Asiat. Res. iv. 117. says, it is a native of Budtan, Népal, and Morang; and that it is a species of Valerian. It is remarkable that he had himself seen a resemblance of it in Syria, as the Romans or Greeks mention Syria as one of the countries where it is found; but Ptolemy gives it its true origin in these tracts of India. A specimen was brought down to Calcutta from Boudtan, at the request of Sir William Jones, and the agents of the Deva Raja called it pampi; but it was not in flower. Some dried specimens of it looked like the tails of ermines, but the living ones, as Dr. Roxburgh afterwards found, rise from the ground like ears of wheat. It answers the description of Dioscórides. It is weaker in scent than the Sumbul spikenard of Lower Asia when dry, and even lost much of its odour between Boudtan and Calcutta. The odour is like the scent of violets; but the living plant is forbidden to be brought out of Boudtan. It was, however, procured by the intervention of Mr. Purling, the English resident; and was at last received in its perfect form by Dr. Roxburgh, who has described it botanically. As. Res. iv. 733.

In the age of the Periplûs it was brought from Scindi, and from the Ganges; which, according to Sir William Jones, we ought to conclude would be the natural port for it, as coming from Boudtan. This authorizes the change of reading from γαπανικὴ [gapanika,] to γαγγιτικὴ, [gangitikà,] more especially as it is mentioned at the Ganges, and the most fanciful inquirer would hardly refer Gapanika to Japan.

Other particulars occur in Pliny which are worthy of remark; for he describes the nard with its spica, mentioning also that both the leaves and the spica are of high value, and that the odour is the prime in all unguents. The price an hundred denarii for a pound. But he afterwards visibly confounds it with the malobathrum or betel, as will appear from his usage of hadrosphærum, mesosphærum, microsphærum, terms peculiar to the betel.

Hoffman in voce Foliatum, writes, Folium catasphærum est Folium Malabathri quod inde σφαῖραι, *i. e.* pilulæ conficerentur. Folium vero Barbaricum, id quod Indicum, Græci recentiores nominarunt quod ex India deferretur per Barbaricum Sinum. F. F. — But it is not the Barbaricus Sinus on the coast of Africa that is meant, but the port Barbarikè in the Delta of the Indus. There the Periplûs finds the spikenard, which is the folium Indicum. Folium catasphærum, hadrosphærum, &c. is the betel-leaf. Hoffman adopts Salmasius's opinion in regard to the mistake of Pliny: he seems to think that the malobathrum, as well as the folium, was confounded with the spikenard. If so, the malobathrum Syrium of Horace is the unguent of spikenard, which, according to Sir W. Jones, is found in Syria as well as in India.

The characteristic name of the nard is folium[66], *the* leaf, pre-eminently in contradistinction to costus, *the* root, both as the prime odours of their two sorts, the root and the leaf.

Dr. Falconer has justly cautioned me to be sure that the nard of Pliny is *the leaf*. I know no more of natural history than I have obtained from the authorities here cited; but that Pliny mentions both the spica and the folium of the nard, is certain; and by his expressions I understand, that what we now know to be the *root*, he supposed to be the *growth*. *Cacumina* in aristas se spargunt, assuredly expresses something above ground; ideo gemina dote nardi spicas ac folia celebrant, as evidently expresses that spicæ and folia are parts of the nard. But that Pliny was mistaken, and that the spica was really the root, cannot be doubted, after the account that Dr. Roxburgh has given. It is clear also from the authorities adduced by Dr. F. that the ancients were well informed of this. " In one of the " receipts for the Theriaca Andromachi, Ναρδοιο τε ριζαν Ινδης. " Ναρδυ ςαχυς, η ριζα ταυτης θερμαινει μεν κατα πρωτην αποςασιν. " Æginet. lib. vii. Galen speaks of it as a root: εκ τουτων δε " η ριζα συγγινομενη δυναμεων. And Arrian: εχειν δε την ερημον ταυτην " τυ Ναρδυ ριζαν, πολλην τε καὶ ευοσμον, καὶ ταυτην συλλεγειν τυς " Φοινικας. And Galen, lib. xii. de Antidotis, c. 14. εφεξης δε " της προγεγραμμενης ο Ανδρομαχος Ινδικην Ναρδον κελευει βαλειν, ηνπερ " καὶ ςαχυν ονομαζομεν Ναρδον, καὶ τοι ριζαν ουσαν, απο της προς τυς " αςαχυας ομοιοτητος, κατα την μορφην. To these may be added " the testimony of the moderns; Murray, Apparat. Medic. " vol. v. pp. 445, 446. Lewis, Mat. Med. and the following " note from Bodæus, which perhaps best solves the question:

[66] Salmasius, p. 1065, is clearly of opinion, that Pliny is regularly mistaken in applying folium to nard. He says it is always peculiar to malobathrum betel.

" In Indica Nardo, salvo meliore judicio, spica dicitur cauli-
" culus, multis capillaceis foliolis obsitus, ad instar aristarum;
" nec de nihilo aut immerito Græci antiquissimi, Romani et
" Arabes Nardo illi Spicæ appellationem imposuerunt. Radix
" quidem est, sed quæ cauliculum e terra emittat, aliquando
" plures ex una radice capillaceis densis aristatisque foliolis
" vestitos. Not. in Theophrast. p. 1018." F. F. Add to this the testimony of Dr. Roxburgh, and it will appear evidently that Pliny was mistaken. Another medical friend informs me, " that the matted fibres, which are the part chosen for medi-
" cinal purposes, are supposed by some to be the *head*, or
" spike of the plant, by others, the *root*—they seem rather to
" be the remains of the withered stalks, or ribs of the leaves;
" sometimes entire leaves and pieces of stalks are found among
" them." Is not this the origin of Pliny's mistake, which Dr. Roxburgh sets at rest? and may not these leaves and stalks be purposely left to increase the weight and price; or even to deceive, as the natives are so jealous of their plant? All this accords with the quotation of Dr. F. from Bodæus.

But there is still a more remarkable particular in Pliny, which is, that he manifestly copies the Periplûs in the three places which he allots for the markets of the spikenard; for he mentions Patala at the head of the Delta[67] in Scindi, correspondent to the Barbarika of the Periplûs; and another sort which he calls Ozænítides, evidently agreeing with the mart of Ozéne (p. 27, Peripl.); and a third sort named Gangitic, from the Ganges, answering to gapanic, for which all the commentators agree in reading Gangitic. Very strong proofs these,

[67] Whether this in Pliny does not apply to costus?

that Pliny had seen this journal and copied from it; as he mentions nothing of Ozéne in his account of the voyage, and only catches Ozænítides here incidentally. See Salmasius, p. 1059. et seq. who is very copious on the subject, and has exhausted all that the ancients knew of this aromatic [68].

70. Ναύπλιος, p. 27. *Nauplius.* P.

It seems to be an inferior tortoise-shell from the context, which runs thus, καὶ χελώνη διάφορος μετὰ τὴν Ἰνδικὴν καὶ ναύπλιος ὀλίγος, *i. e.* tortoise-shell of superior kind, but not equal to the Indian; and a small quantity of that species called nauplius. It may, however, be a different commodity; but I cannot trace it in Pliny, unless it be the shell of that fish he calls nauplius, lib. ix. c. 30. or 49 Hard. which seems a species of the nautilus; but which Hardouin says, does not sail in its own shell, but a borrowed one.

71. Νῆμα Σηρικὸν. D. P.

Sewing silk, or silk thread, from China. If this passage be correct, it proves that silk was brought into India from China, as early as the age of the Periplûs. Νῆμα can hardly be applied to a web, it seems always to be thread.

It is called μέταξα by Procopius and all the later writers, as well as by the Digest, and was known without either name to Pliny; for he says, the women who wrought it had the double trouble of untwisting the silk thread, and then weaving it up into a manufacture. Unde geminus nostris fœminis labor, redordiendi fila rursumque texendi. See Procop. Anecd. p. 3. Zonaras ad Concil. p. 231. And for the history of the silk trade at Tyre, see Procop. Hist. Arc. p. 73. Justinian ruined

[68] It resembles the tail of a small animal, in Dr. Burgess's Collection.

the trade at Tyre, and yet sent the Monks to bring the worm from the East. Procop. de Bello Goth. iv. 17. p. 613. Byz. Hist. See Gibbon.

Αυτη δε εσιν η μεταξα εξης ειωθασι την εσθητα εργαζεσθαι, ην παλαι Ελληνες Μηδικην εκαλεν, τανυν δε Σηρικην ονομαζεσιν. Procop. Persic. & Vandal. lib. iv. Μεταξα sera cruda. Du Cange. F. Unwrought silk is called Ἔριον in the Periplûs.

Ιματία τὰ ἐκ ΜΕΤΑΞΗΣ ἐν Βηρυτῷ μὲν καὶ Τύρῳ πόλεσιν τῆς Φοινίκης ἐργάζεσθαι ἐκ παλαιοῦ εἰώθει· οἱ δὲ τετῶν ἐμποροὶ καὶ δημιεργοὶ καὶ τεχνῖται ἐντεῦθα τὸ ἀνέκαθεν ὥκεν. Procop. Anec. p. iii. Hist. Arc. p. 8.

The manufactures had been long established at Berútus and Tyre. The web was formed from the metaxa; may we not call it organzine silk? The price of the metaxa was raised by the taxes imposed in Persia; and, upon the manufacturers raising the price, Justinian fixed a maximum and ruined the trade.

O

72. Ὀθόνιον. *Muslin.* P.

1st sort. Ἰνδικὸν τὸ πλατύτερον ἡ λεγομένη Μοναχὴ.

Wide India muslins called Monakhè, that is, of the very best and finest sort; *particularly* fine.

2d sort. Σαγματογήνη.

Which is evidently the cotton too ordinary to spin, and made use of only for stuffing of cushions, beds, &c. The Greek term is derived from Σάσσω, to stuff, Σάγματα, stuffing, or things stuffed. The article in the Periplûs would be better read Σαγματογένη, the *sort* of cotton used for stuffing. Marco Polo, lib. iii. c. 29. says, Il Bambagio che si cava di quello, cosi

vecchi non e buon de filare, ma solamente per coltre. And Strabo; ἐκ τούτου δὲ [the cotton plant] Νέαρχος φησὶ, τὰς ἐυητρίους σινδόνας ὑφαίνεσθαι, τὰς δὲ Μακεδόνας ἀντὶ κναφάλων αὐτοῖς χρῆσθαι, καὶ τῆς Σαγματοσάγης. Fine muslins are made of cotton; but the Macedonians used cotton for flocks, and stuffing of couches. Mr. Marsden, p. 126. notices the cotton used only for this purpose in Sumatra as the Bombax Ceiba; and Percival mentions the same in Ceylon, p. 328. See also Dampier, New Holland, p. 65. and Voyage, p. 165. Ὀθόνιον is from ὀθόνη, the thin inner garment of women, corresponding to the χιτὼν of men. Hom. Il. Σ. 595. Meursius proposes Σαγματόγουνη, vestis pellicia. F.

Monakhè, single.

3d sort. Χυδαῖον.

Coarse muslins, or rather coarse cottons, called at present dungarees; Wilford, As. Dissert. vol. ii. p. 233. to which monakhè is opposed as a finer sort.

73. Οἶνος. *Wine.* P.

1. Λαοδικηνὸς. *Wine of Laodicêa,* in Syria. Syria is still famous for its wine. Volney, tom. ii. p. 69. Strabo. d'Anville Geog. An. ii. 134.

2. Ιταλικὸς. *Italian Wine.* P.

3. Αραβικὸς. *Arabian Wine.* P. It is dubious whether it may not be palm or toddy wine, it seems to have been a great article of commerce.

74. Ὄμφαξ Διοσπολιτικὴ. *Dipse, Rob of Grapes from Diospolis.* P.

For the explanation of this article I am wholly indebted to Dr. Falconer, and return my thanks to him more particularly,

as it was the commencement of his correspondence. He observed to me, that it was the dipse of the Orientals, and still used as a relish all over the East. Dipse is the rob of grapes in their unripe state, and a pleasant acid. I have found many authorities to confirm his suggestion. Pliny, v. 6. xii. 19. xii. 27. xiv. 9. xxiii. called by Columella, Sapa vini. See also Shaw. Dr. Russel's Aleppo, p. 58. and Pocock, i. p. 58. made at Faiume, and called Becmas, or Pacmas. Iter Hierosol. ex uvarum acinis Mauris Zibib vel Zibiden dictum, p. 357, ex acinis succum exprimunt, coquuntque, donec ad spissitudinem, instar mellis ebullierit, Pacmas id Arabicè vocant, nos defrutum, Itali mosto[69] cotto, mustum coctum, eoque in cibis pro intinctu utuntur, nonnulli aquâ multâ dilutum bibunt, id. p. 387. Ebn Haukal likewise describes it, and calls it Doushab, made at Arghan in Susiana.

75. *Onyx Arabicus.* D. *Arabian Onyx.*

This article stands in the Digest so unconnected with all that precedes and follows it, that Ramusio, in order to make it a drug, reads it Gum Arabic; and I can hardly think otherwise than that it is a corruption, and that some aromatic produce of Arabia is meant; but what, it is impossible to determine. Mr. Falconer is persuaded "that it is the Onyx used as a box to "contain odours or perfumes, the same as the Alabaster of "Scripture, Luke, vii. 37. and Pliny, lib. xxxvi. c. 8. or 12 "Hardouin, strongly confirms this opinion, for there the Onyx

[69] The mustard which we use (pro intinctu) was originally from Italy, and was, in its unadulterated state, the must of new wine: it was afterwards quickened with the Sinapi, (or the plant we call mustard,) till at length the adulteration supplanted the genuine Mustum ardens, Mosto che arde.

" is said to be found in Arabia, and to be the same as Ala-
" bastrites, and to be excavated for the purpose of containing
" unguents or perfumes; and so Horace, Nardi parvus onyx
" eliciet cadum." F. I have nothing to object to this but the context.

76. Ὀπήτια, p. 27. *Awls or bodkins.* P.

An article in trade on the coast of Africa, as needles are at this day.

77. Ὀρείχαλκος. *Mountain Brass.*

Used for Ornaments, and divided into small pieces or parcels by way of coin. Ramusio calls it white copper, copper from which the gold and silver has not been well separated in extracting it from the ore. It is sometimes written, in other authors, Aurichalcum; and in the trade of Adooli, where it occurs, I could have wished to have interpreted it *Gold*, still formed into parcels or ounces instead of coin, and current in Abyssinia. It is extraordinary that gold does not occur as an export from any of the African marts throughout the Periplûs. See Peripl. p. 4. Ἀδουλεῖ. Ὀρείχαλκος ᾧ χρῶνται πρὸς κόσμον καὶ εἰς συγκοπὴν ἀντὶ νομίσματος.

Π

78. { *Pardi* / *Leopardi* / *Pantheræ* } D. *Tygers, Leopards, Panthers.*

{ *Leones* / *Leænæ* } D. *Lions* and *Lionesses.*

79. Παρθένοι ἐυειδεῖς. P.

Handsome women slaves for the haram are mentioned as intended for presents to be sent up to the Indian sovereign, whose capital was Ozénè or Ougein.

80. *Pelles Babylonicæ.* D.
Parthicæ.

Hides from Babylonia or Parthia, possibly dyed like Turkey or Morocco leather; but Q.? Possibly furs or peltry?

81. Πελύκια. P.

Small hatchets or axes for the African trade.

82. *Pentasphærum. Folium Pentasphærum.* D. Nard.

See article Nard. Mr. Falconer thinks that Pliny has not confounded the Folium or leaf of the Nard with the Betel as Salmasius asserts; but that he takes the leaves from three different parts of the plant, the large making the least valuable odour, and the smaller leaves the best; hence, the distinction of hadrosphærum, mesosphærum, microsphærum, and that the pentasphærum of the Digest is still an inferior sort. Of this I am no competent judge, but I think it strange that the distinctions of Hadrosphærum, &c. should be applied by the ancients both to the Betel, as they are by the Periplûs, and to the Spikenard as they are by Pliny, if this opinion be founded. Pliny, lib. xxiii. 4. has certainly copied the same authorities as Dioscórides, for he makes malóbathrum a masticatory to sweeten the breath, and an odour to put among clothes, as we sometimes put lavender; both which particulars are in Dioscórides, but lib. xii. 59. Hard. it is a *tree* found in Syria and Egypt as well as India. It is much more probable that Mr. Falconer should be right, than one who is little acquainted

with Natural History, but my doubts concerning Pliny's confusion are not removed.

83. Πέπερι. *Pepper.* D. P.

Imported from the coast of Malabar, as it still is; the native term on the coast is pimpilim; Salm. p. 1070. or the Sanskreet, pipali. As. Res. vol. iv. p. 234. The pepper coast is called in Arabic beled-el-fulful. D'Anville, Ind. p. 218.

It was found by the Greeks from Egypt, first in Ethiopia, as an article of commerce brought thither by the Arabs, but was known in Greece much earlier.

Two sorts are distinguished in the Periplûs, " and recognized " by Theophrastus, lib. ix. c. xxii. στρογγύλον round, and ἀπομῆκες " long. And by Dioscórides, the Betel is likewise a species " of the pepper. Porro Betle foliis Piperis adeo similia sunt, " ut alterum ab altero vix discerni queat, nisi quod Piperis " folia paulo duriora sunt, et nervi excurrentes paulo majores. " Bodæus a Stapel in Theophrastum." F. F.

1. Κοττοναρικὸν. P.

From Cottonara, the kingdom of Canara, according to Rennell, which is still the principal mart for pepper, or at least was so before the English settled in Sumatra. This is the black pepper. See Marsden's Sumatra, p. 117. White pepper is the black stripped of its outward coat.

2. Μακρὸν. P.

Long pepper[70], so called from its form being cylindrical, an inch and an half long. It consists of an assemblage of grains

[70] Tabaxir is the common long pepper.

or seeds joined close together. It resembles the black pepper, but is more pungent, and it is a species of the East India pepper, totally distinct from the Cayenne, and used for the purpose of adulteration. This is the reason that we buy pepper ground, cheaper than whole.

84. Περιζώματα. P.

Girdles or sashes, and perhaps distinguished from the following article, as appropriate to men.

85. Πηχυιαῖαι αἱ ζῶναι. P.

Sashes of an ell long, as ζῶναι, more applicable to women, of a different make or ornament.

86. Πιννικὸν. D. P.

Pearls, or the pearl oyster. See the fishery at Cape Comorin.

87. Πορφύρα διαφόρα καὶ χυδάια, p. 35. P.

Purple cloth of two sorts, fine and ordinary. An article of trade at Moosa in Arabia.

88. Ποτήρια, *Drinking Vessels.* P.
Χαλκᾶ, *Brass.* P.
Στρογγύλα, *Round.* P.
Μεγάλα, *Large.* P.

Probably all three epithets apply to the same vessel. An article of import on the coast of Africa.

89. Πυρὸς ὀλίγος. P.

Wheat in small quantities, imported into Omana, or Oman in Arabia.

P

90. Ῥινόκερως. *Rhinoceros.* P.

The horn or the teeth, and probably the skin, imported from the coast of Abyssinia, where Bruce found the hunting of this animal still a trade, which he has described in all of its branches, vol. iv.

Σ

91. Σάγγαρα. P.

Boats or small vessels used on the coast of Cochin for conveying the native commodities from the interior to the ports, and sometimes along the coast from Malabar to Coromandel and the contrary.

92. Σάγοι Αρσινοητικοῖ γεγναμμένοι καὶ βεβαμμένοι, p. 14. P.

Rugs or cloaks made at Arsinoe (Suez), dyed, and with a full knap.

93. Σανδαράκη. P.

Red pigment, Salm. p. 1155. found in gold and silver mines. Pliny. Ore of Cinnabar. Dr. Burgess. Sandaracham et Ochram Juba tradit in insula rubri maris Topazo nasci, inde nunc pervehuntur ad nos. Plin. xxxv. 22. Hard.

94. Σακχαρι. D. P. *Sugar.*

Made at Tyre in the 12th century. Benjamin of Tudela. Bergeron, p. 17. But when first planted in Europe, dubious. See article 67.

95. Σάπφειρος. *Sapphire Stone.* D. P.

The ancients distinguished two sorts of dark blue or purple, one of which was spotted [71] with gold. Pliny says, it is never pellucid, which seems to make it a different stone from what is now called sapphire. Dutens says, the true azure sapphire was consecrated to Jupiter by the ancients.

96. *Sarcogalla* [72], or *Sarco-colla.* D.

A styptic, from Σὰρξ and κολλάω, *to unite the flesh;* that is, to draw the lips of the wound together, and heal it. Supposed to be gum Arabic by some; but others say, from a tree in Persis. Ramusio reads the text without any notice of al chelucia or sarcogalla, and concludes all three under the following article, which is read onyx Arabicus, but which he reads gum Arabic, meaning, perhaps, to render the three consistent; and a drug seems more requisite than the onyx-stone; but see Onyx Arab. Dr. Falconer says, the sarco-colla is not gum Arabic; but adds, that it is well known in the shops, though the tree, or country which produces it, is not known. See Chambers in voce. "Fit et ex sarcocolla, ita arbor vocatur, gummi utilis-"simum pictoribus et medicis. Plin. lib. xiii. 11." F.

97. *Sardonyx.* D.

"The sardonyx is next in rank to the emerald: Intellige-"bantur colore in Sarda, hoc est velut carnibus ungue hominis "imposito, et utroque translucido, talesque esse Indicas tra-

[71] Dr. Burgess has specimens of both sorts, the one with gold spots like lapis lazuli, and not transparent.

[72] It is noticed in Barret's Catalogue, Hackluyt, ii. 278. as coming from Persia; and in rates of tonnage, As. An. Reg. 1803, p. 122. as Gum Sarcocolla.

" dunt. Arabicæ excellunt candore circuli prælucido atque " non gracili, neque in recessu gemmæ aut in dejectu reni- " tente, sed in ipsis umbonibus; nitente præterea substrato " nigerrimi coloris. Plin. xxxvii. 7." F. See Chambers in voce, where, it is said, the sardonyx of Pliny is not what now bears the name but a camaieu. I have not found this passage as cited in Pliny, but conclude I have the numerals wrong: the sardonyx is mentioned in the chapter adduced.

98. Σηρικὰ δέρματα. *Chinese Hides or Furs.* P.

What is meant by δέρματα no where appears, unless it should be applied to furs. Pliny mentions the Sêres sending their iron wrapt up in or mixed vestibus pellibusque. F. See article following. Furs have ever been a great article of trade in China, and possibly some of the furs out of Tartary reached India by means of the Chinese merchants, or intermediate traders. Of pelles Babylonicæ there is frequent mention, but apparently as dyed leather. Still there is nothing that forbids the rendering of pelles by furs; and though the Chinese now buy them eagerly, they would sell them as readily, if it were more profitable. Gentes pellibus vestitæ, perhaps, always implies skins with the fur not taken off.

99. Σίδηρος. *Iron.* P.

An import into Abyssinia for the manufacture of spear heads, to hunt the elephant, rhinoceros, &c.[73]

Ἰνδικὸς. D. P. *Ferrum Indicum.* D.

[73] To cut like an Indian sword, is a common Arabic proverb in Arabsha. And in Egypt, Shaw (p. 364.) says, the hardest tools (as drills for working the granite obelisks) were made of Indian iron. Shaw quotes the Periplûs, but not perhaps justly.

Iron tempered in India.

" Ex omnibus generibus palma Serico ferro est. Seres hoc " cum vestibus suis pellibusque mittunt. Secunda Parthico, " neque alia genera ferri ex mera acie temperantur, cæteris " enim admiscetur. Plin. lib. xxxix. c. 14. Plutarch (in " Crasso). And Arrian de Rebus Parth. or the work ascribed " to him, mentions that the Parthians covered their armour " with leather, but at the moment of attack they threw off " the covering, and appeared glittering in their burnished " steel. Milton also, Par. Regained, lib. iii." F. In montibus Kabel (Cabul) inveniuntur ferri fodinæ celeberrimæ, et humanis usibus aptissimæ, producunt enim ferrum acutum et venustum. Al Edrissi.

100. Σινδόνες. D. P.

Fine linen of any sort, but that imported into Abyssinia might be Egyptian, and possibly of cotton ; but

Σινδόνες αἱ διαφορώταται Γαγγιτικαὶ. P.

Can be nothing else but the finest Bengal muslins.

101. Σῖτος. *Wheat Corn.* P.

102. Σκέπαρνα. *Adzes.* P.

In contradistinction to πελύκια, hatchets.

103. Σκεύη αργυρᾶ. *Silver Plate.* P.

104. Ὑαλᾶ. P.

Vessels of chrystal, or glass in imitation of chrystal.

105. *Smaragdus.* D. The Emerald.

There are twelve sorts, according to Pliny and Isidorus, (Gothofred.) Nero used an emerald as an eye-glass ; and Go-

thofred, or Isidorus, supposes that the emerald has a magnifying power. Mr. Falconer imagines it to magnify only from the density of the medium. Mr. Dutens denies that the ancients had any knowledge of the emerald, and in this he is supported by Tavernier, the Abbè Raynal, Harris, and Bruce. The green gems which the ancients called emeralds, were all of inferior quality to those brought from Brasil and Peru; and from the size mentioned of some of them, they are justly supposed to be Fluors; but we read of an emerald island in the Red Sea, and much notice is taken of them, both by naturalists and poets. The greatest difficulty to be surmounted by Mr. Dutens seems to be the archbishop of York's emerald, engraved with a Medusa's head of Grecian sculpture, and brought from Benares; but this, he calls a green ruby, p. 14. See Bruce, i. 206. who says, Theophrastus mentions an emerald of four cubits, and a pyramid sixty feet high, composed of four emeralds. And Roderick of Toledo talks of an emerald table in Spain 547 feet long! But Bruce says, likewise, the true emerald is as hard as the ruby. How then are we to distinguish between an emerald and a green ruby? Bruce visited the Emerald Island in the Red Sea, and found nothing more like emeralds than a green chrystalline substance, little harder than glass; and this, he adds, is found equally on the continent and the island. Emeralds have been found in Peru, in the barrows of the dead, of a cylindrical form; so that the Peruvians, anciently, must not only have known the gem, but valued it; and must also have possessed the art of cutting it. Ulloa. Mr. Falconer has suggested to me a singular passage in Pliny, which may be applied to Nero's emerald, and which

had escaped my notice: Iidem plerumque et concavi ut visum colligant. Plin. lib. xxxvii. c. 5. or 16 Hard.; so that the emerald mentioned in this instance might truly be considered as an eye-glass for a short sight. F. The whole chapter is so very express, that it is hard to conceive what is an emerald, if Pliny's is not: Scythicorum Ægyptiorumque tanta est duritia ut vulnerari nequeant. This seems to express that hardness which the jewellers try by the file.

106. Σμύρνα. *Myrrh.* D. P. *Mor*, Arabick. *Bitter*, Stuckius[74].

"The myrrh of the moderns is the same as that described by "the ancients, but the tree from which it is obtained is still "doubtful. It is likewise still brought from the same coun- "tries, that is, Arabia, and the western coast of the Red Sea. "But the Trogloditic, or Abyssinian, is preferred to that of "Arabia. Murray, Apparat. Med. vol. vi. p. 213. See "Bruce, vol. v. p. 27. Omnium prima est quæ Troglodytica "appellatur, accepto cognomine a loco in qua provenit, "splendens, subviridis ac mordens. Dioscórid. Matthioli, "lib. i. c. 76. Plin. lib. xii. c. 15. It was procurable in "Arabia, imported from the opposite coast of the Red Sea." F. F.

Διαφέρουσα τῆς ἄλλης. P.

Of a superior sort.

Ἐκλεκτὴ. P.

Of the best sort.

[74] The Natural History of Stuckius is much better than his Geography.

107. *Spadones.* D. *Eunuchs.*

108. Στακτὴ. *Gum.* D. P.

Αβειρμινάια, read Σμυρνάια, by Bochart, Geog. Sac. ii. 22. Salm. 520. Extract or distillation from myrrh, of the finest sort. The reading is proved by Salmasius from a similar error in an inedited epigram. Minêan; Σμύρνης Αμμιννέας, Dioscor. lib. i. c. 78. Plinius habet Minæa, lib. xii. c. 16. and Hesych. Ἀμινᾶιον οἶνον. Stephan. in voce. F. I have no doubt but that Minêan is concluded in Αβειρ-Μινάια. Abeir is posssibly an Oriental distinction, as Stactè Abeir, the Gum Abeir from Minêa.

109. Στῆμι. Στίμμι. P.

Stibium for tinging the eyelids black.

110. Στολαὶ Ἀρσινοητικαὶ. P.

Women's robes manufactured at Arsínoè or Suez.

111. Στύραξ. *Storax.* P.

One of the most agreeable of the odoriferous resins. There are two sorts, storax in the tear, supposed to answer to the ancient sturax calamita, from its being brought in a hollow reed, or its distillation from it; and common storax, answering to the stacte sturax[75] of the ancients. It now grows in the neighbourhood of Rome; but the drug was anciently brought thither from the islands in the Archipelago. See Salm. p. 1026. Chambers in voce. Most of these gums, resins, and balsams have in modern practice yielded to the

[75] Strabo mentions styrax in Pisidia; a distillation from a tree, caused by a worm breeding in it. Lib. xii. p. 570.

American, as this seems to have given way to the balsam of Tolu.

112. Σῶματα, p. 15. P.

Slaves from Africa, an ancient trade! but the number was not great.

Υ

113. Ὑάκινθος. D. P.

The hyacinth or jacinth, a gem which Salmasius says is the ruby, p. 1107. See Solinus, c. xxx. p. 57. where it seems to be the amethyst. And Mr. Falconer concludes, that it is an amethyst, from the expression of Pliny, emicans in amethysto fulgor, violaceus dilutus est in Hyacintho; but Hardouin reads, emicans in amethysto fulgor violaceus, dilutus est, &c., and violaceus fulgor is surely the peculiar property of the amethyst. Salmasius adds, that the Oriental name of the Ruby is Yacut from Hyacinthus; but Dutens says the hyacinth is orange Aurora, inclining to poppy, p. 35. and makes the Jacinth a distinct gem from the Ruby; but the Ruby, he observes, likewise, is of a poppy colour, and is called Hyacinth when it has the least tincture of yellow. Whether this distinction applies to the ancients, I am not a judge to determine; but if the hyacinth is a distinct species, I can find no classical name for the ruby. See Pliny, xxxvii. 9. or 41. Hard. and fulgor violaceus seems appropriate to the amethyst.

Φ

114. *Fucus.* D. *Red Paint.*

X

115. Χαλκὸς. *Brass or Copper.* P.

116. Χαλκεργήματα. P.

Vessels of brass, or any sort of brazier's work.

117. *Al-chelucia*, which Ramusio reads *Agallochum*, *Aloes.* D.

Matthioli coincides with Ramusio in the correction. Dioscór. p. 40. "Agallochum is the aloes wood, xylo aloes, lignum "aloes, the lign aloes of scripture. Numb. xxiv. 6. and not "aloes the drug. The best is heavy, compact, glossy, of a "chesnut colour, intermixed with a blackish and sometimes "purple shade. It is resinous and balsamic. Neuman's "Chemistry, by Lewis." F. F. I was myself disposed to think Chelucia, χελυκία, a correction of Χελυς, Chelys, the tortoise, *i. e.* tortoise-shell.

118. Χελώνη. D. P.

Tortoise-shell seems to have formed a great article of commerce, for ornaments of furniture, as beds, tables, doors, &c. both in Italy, Greece, and Egypt. It was brought from the coasts of Africa near Moondus, from Socotra, Gadrosia, Malabar, and the Lackdive, and Maldive Islands, and from Malacca. The latter seems to be designed by the χρυσιονῆσοι of

the Periplûs. The finest sort was sold for its weight in silver.

119. Χιτῶνες. P.

Under garments, imported from Egypt into Africa.

120. Χρῆμα. *Specie.* P.

The Periplûs is very accurate in noting the ports where it was necessary to trade with specie; and in more instances than one, notices the advantage of exchange.

121. Χρυσόλιθος. *Chrysolite.* P.

Sometimes the same as chrysites, the touchstone for gold, Salm. p. 1103; but described as a stone as it were sprinkled with spots of gold, Salmasius, p. 407. who points out what it is not, but cannot determine what it is. It may well be the topaz[76], as Dutens makes it, p. 18.

122. Χρυσῆν. P.

Used with δηνάριον, as is ἀργυρῆν also, expressing gold and silver denarii.

123. Χρυσώματα. *Gold Plate.* P.

There is a corrupt passage in the Digest, which appears thus: Chelynie hopia Indica adserta.

Gothofred joins it to the preceding article Beryllus; and Ramusio reads it Beryllus Cylindrus. Salmasius supposes it to

[76] The Bohemian is yellow, with a greenish nut; the Oriental is very pale yellow. Dr. Burgess's Oriental topaz is deep yellow.

be a separate article, and reads it Chelone Æthiopa, as one species of the Chelonia of Pliny, (xxxvii. 56. Hard.) that is, the gem called the Æthiopian Tortoise Eye, and Chelone Indica, another species; and it may be added, that this is conformable to the order of the Digest, when it mentions two species of the same article. The passage, however, is much doubted, and is sometimes joined with adserta, and sometimes separated. Hopia Indica adserta, opera Indica adserta, omnia Indica adserta, and again opera Indica, tincta, adtincta, &c. &c.; but if we accede to Salmasius in regard to the two species of Chelone, and place the period at Indica; adserta may be another general title like several in the Digest, and easily converted into Serica, it would then stand thus:

Serica, - -	general title,	silk.
Metaxa, - -	1st species, -	silk thread.
Vestis Serica, -	2d species, -	silk web.
Nema Sericum, -	3d species, -	sewing silk.

The only objection to this is, that Metaxa and Nema Sericum are usually applied to the same thing. Mr. Falconer supposes that tincta, if the reading can be supported, may mean dyed or coloured silks. F.

Camphor. Cafur, al Kafur, of the Orientals. I had expected to find this article in the Digest, but as it comes particularly from Java, Sumatra, and Borneo, this may account for its being unnoticed. The history of it occurs in Schikard's Tarik, p. 185. who commends Marco Polo for his veracity, (was he not the first who brought the knowledge of it to Europe?)

and he adds, that Al Edrissi speaks of Lanchialos, and then Kalan, where Camphor is obtained, and Kalan he supposes to be Borneo. This is a proof that the drug was known to the Arabians in the twelfth century; but the Lanchialos of Al Edrissi is very dubious; he certainly makes it a different island from Ceylon, and yet Lanca Ilam is one of the Hindoo names of Ceylon. See Al Edriss. p. 35.

ADDITIONS AND CORRECTIONS.

P. 38. line 19. *The sun rises like a column.*—This phenomenon is noticed by Gentil near Socotra. Tom. ii. p. 728. Le soleil.....il semble voir la plus superbe colonne d'or qui s'etend depuis l'endroit ou le soleil se leve jusq'au bord du Vaisseau.

113. *Note*, line *ult. for* ὁμογλώθους *read* ὁμογλώσσους.

177. *Note*, line 11. *for* νοχθήμέρος *read* νυχθήμερος.

191. *Circumnavigation of Africa.*—M. Gentil, tom. ii. p. 801. supposes it possible for ancient ships to have got round the Cape by adhering to the shore: but, tom. ii. 766. he writes, C'est au Cap de bonne Esperance que l'on trouve les plus gros mers connues du Globe.

315. line 16. *for* χυδωία *read* χυδάια.

☞ *If there be any other errors, the Author trusts they are such only as will suggest their proper corrections; but he is aware that his references may be objected to, in some few instances, as made to different editions of the same work. This he is necessitated to acknowledge, chiefly in regard to Pliny, Salmasius, and Bruce; but he was not always possessed of the same edition, and the Indexes will supply what may be requisite.*

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n, note. *r*, remark.

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New-Street Square, London.